

AMERICAN

DECEMBER • 1955

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

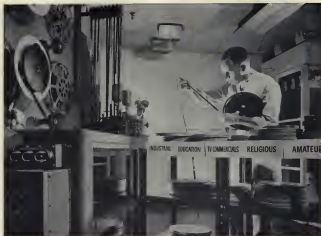


This Issue ...

- A Day With A Camera
- George Eastman House Cites Veteran Cameramen
- Effect Lighting In Contemporary Film Production

25c

ISSUE 35



NOW! These six laboratories offer fast magnetic Magna-Striping® for all 16mm films!

Byron Labs

1226 Wisconsin Ave., Washington, D.C.

Colburn Labs

164 N. Wacker Drive, Chicago 6, Illinois

Consolidated Film Industries, Inc.

959 Seward Street, Hollywood 38, California

Animex

Nieuwe Gracht 7, Haarlem, Holland

Sathaporn Cinema Co.

2196 Tung Mahanak, Bangkok, Thailand

Reeves Soundcraft

671 Hope St., Springfield, Conn.

Here's real striping. Striping that will never soften and come off because of projection lamp heat. Magna-Stripe has the original balancing stripe.

And more: Magna-Stripe is the only magnetic striping used on Cinemascope films produced by major Hollywood producers. Soundcraft won an "Oscar" for this process in 1953.

Three sizes of Magna-Stripe are available:

25-mil Magna-Stripe for double-perforated silent film

30-mil Magna-Stripe for both magnetic and photographic sound

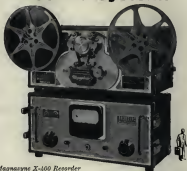
100-mil Magna-Stripe for all-magnetic sound track

FOR EVERY SOUND REASON

REEVES SOUND CRAFT CORP.

10 East 52nd Street, New York 22, N. Y.

a complete
27-lb. sound system!



Magnasyn X-400 Reorder

Producer Net Price **\$895.00**
F.O.B. North Hollywood, Calif.

FEATURING...

- High gain "long-shot" microphone channel.
- Dialog equalization for "speech-music" selection.
- Self-contained playback system for "film-direct" monitor.
- Famous Magnasyn "Synkinetic" precision film transport.
- High speed rewind, sync speed reverse and fast forward.
- Convenient arrangement for "sync marking."
- Footage counter, extended capacity arms, "quick-detach" mount for special motors, projector cable interlocks and many other compatible accessories to help increase production efficiency.
- Unconditionally guaranteed specifications.

send for complete specifications and delivery schedule.

INTERNATIONAL LEADERS IN THE DESIGN AND MANUFACTURE OF QUALITY MAGNETIC FILM RECORDING DEVICES



MAGNASYN MANUFACTURING CO., Ltd., 5546 Solisway Ave., North Hollywood 1, Calif.

DEALERS

NEW YORK—Cinema Equipment Co., 1600 Broadway
New York 19. Jolson 8-5120. Cable Address: CINEQUIP
CHICAGO—Zach's Cinema Service, Inc., 3232 Foster
Ave., Chicago 25, Ill. Irving 8-1104.

SAN FRANCISCO—Beaumont Camera Co., 45 Kearney St.,
San Francisco, Calif. EMERSON 3-7348
CANADA—Alex L. Clark Ltd., 3745 Bloor St., Toronto
18, Ontario. ELMONT 1-3333.



to you . . .

whose
intelligent
demand
has
helped

US

create

quality

. . . our

sincere

gratitude

and

appreciation

CONSOLIDATED
FILM
INDUSTRIES



939 Second St., Hollywood 38, Calif.
1740 Broadway, New York 10, N. Y.

AMERICAN

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY
PUBLICATION OF THE AMERICAN SOCIETY OF CINEMATOPHOTOGRAPHERS

ARTHUR E. GAVIN, Editor

MARION BUTLER, Editorial Assistant EMMET HUGH, Technical Editor
EDITORIAL ADVISORY BOARD: John Arnold, Arthur Edson, Les Garmon, Charles
Kushner, Louis Shamroy, Fred Sarge, Glenn R. Kershner

Editorial and Business Office: 1723 N. Orange Dr., Hollywood 38, Calif.
Telephone: HO419247-7-5123

VOL 36

DECEMBER • 1955

NO. 12

In This Issue

ARTICLES

FIVE VETERAN CINEMATOPHOTOGRAPHERS HONORED WITH "GEORGE" AWARDS	785
AND NOW WHAT—By Charles C. Clarke, A.S.C.	786
A DAY WITH A CAMERA—By Allan Fisher	788
USE OF EFFECT LIGHTING IN COMMERCIAL FILM PRODUCTION —By Charles Leving	790
NEW LIGHTWEIGHT VIDEAVIDEUM CAMERA	793
MAKING STUDIOS IN A TRICE—By Frank J. Ross, Jr.	794
EXPOSURE RECORDERS FOR AMERICAN CAMERAS	797

AMATEUR CINEMATOGRAPHY

FILMING WITH FILMSTRIPS—By Clifford Worthington	798
THE DREAMS OF COLOR—By Nathan Pertz	799

FEATURES

WHAT'S NEW IN EQUIPMENT, ACCESSORIES, SERVICE	800
HOLLYWOOD RENOVATION BEGINS	804
YOUR QUESTIONS—By Jackson J. Ross, A.S.C.	806
PSYCHOLOGY AND THE SCREEN	808
HOLLYWOOD STUNDS PRODUCTION	812
ANNUAL INDEX	837

ON THE COVER

THE "GEORGE" AWARD, created and sponsored by the George Eastman House, Rochester, New York, and presented recently to 20 veteran cinematographers, motion picture directors, actors and actresses for distinctive contribution to the American Cinema from 1925 to 1955. See story beginning on page 795 of this issue.—Photo by Danny Kessler.

AMERICAN CINEMATOPHOTOGRAPHER, established 1919, is published monthly by the A. S. C. Agency, Inc., 1723 N. Orange Dr., Hollywood 38, Calif. Entered as second class matter Nov. 11, 1917, at the postoffice at Los Angeles, Calif., under no. 41, 1974. REGISTRATION: United States and Canada, 35-51 per year. Foreign, including Post-Office, \$4.00 per year. Single copies, 35 cents; back numbers, 50 cents. Foreign single copies, 75 cents; back numbers, 40 cents. Advertising rates on application. Copyright 1955 by A. S. C. Agency, Inc.

Mitchell Camera Films full color panoramic views of James Soldier sequence from the Bob Jones University Film, "Wine of Mourning."

UNIVERSITY MAKES FEATURE FILM

**University Film Production Unit
Shoots Full-Length Motion Picture on Campus**

In Greenville, South Carolina, Bob Jones University is demonstrating a remarkable new trend in campus-produced films. This institution has not only reduced filming costs, but has created professional theatre-quality films, like the full-length feature "Wine of Mourning," to equal Hollywood's best efforts.

These remarkable changes have been accomplished through the application of motion picture set techniques and the adoption of professional equipment used by major motion picture studios. The leading example of this development is seen in the increased use of the Mitchell 16mm Professional Camera, whose service-free operation and broad range of use has materially cut the costs of campus film production. Representatives of film departments owning Mitchell Cameras are: Bob Jones University, Georgia Institute of Technology, Moody Institute of Science, and the Universities of California, Mississippi, Southern California, and Washington.

Complete information on Mitchell Cameras is available upon request on your letterhead.

***85% of the professional motion pictures shown throughout the world are filmed with a Mitchell Camera.**



Camera instructions are given by Mrs. Katherine Stenholm, Director of the Bob Jones University's film unit.



On the set of Prince's Judgment Hall the Mitchell Camera focuses on set design created by students.

University cameramen use standard Hollywood studio 16mm Mitchell Camera for interior scenes.

Mitchell Camera
CORPORATION

688 WEST HARVARD STREET
GLENDALE 4, CALIFORNIA

Cable Address: "MITCAMCO"

NO MORE NEGATIVE NOTCHING



DUNNING MAGIC DOT PRINTER CUEING UNIT

COMP1035—111 Sizable of high sensitive Acousto-mech pressure sensitive lens. (1) Speed punch for cutting, offsetting and producing Sharp Dot in 8/16 edge. (2) Motor receiver to convert 115 Volts "0" or "12" R.M. into 100 V.A. (3) Electric control box for automatic light change and motor impulses.

Standardized Film Industries' installation requires "Order 10,000 always without a sale."

Complete 4-part unit, \$369.00

Also single frame
tripping device for

TIME LAPSE PHOTOGRAPHY

Battery or AC operated

ANSON RESEARCH CO.

4307 Culverston, North Hollywood, Calif.

The FINEST 400-Ft. CONVERSION

of Audicon Cine-Voice



Only \$595

NOW
\$395

With Your Request
Filmtronics, Inc.

Box 1, 100 Washington St., New London, Conn.

WHAT'S NEW

... in equipment, accessories, service



Cine Lens Attachments

Wollensak Optical Co., Rochester, N.Y., announces a new Cine Wide Angle Lens attachment and a Cine Telephoto Lens Attachment for Bell & Howell 252 and 220 and Kodak Browne 1/2.7 and 1/1.9 cameras. One lens fits all cameras, made possible by special adapter ring for the Bell camera. Ring is not required for the Browne cameras. Each lens fits for \$22.95 each. Finders are available at \$3.00 each.

Generator Rentals

J. G. McAlister, Inc., Hollywood, has acquired the Bruckner Motor Service, a leading generator rental company in Hollywood. Consolidation will give McAlister the most complete line of portable electric generator equipment in the motion picture industry.

Microphones

S.O.S. Cinema Supply Company, 602 West 52nd Street, N.Y., is now distributing the AKG Microphones. Same product is also available through company's Hollywood office, 6331 Hollywood Blvd.

Sync Motor Drive

PAR Products Corp., 626 No. Citrus Ave., Hollywood 38, Calif., offers a new non-sparking synchronous 24 fps motor drive for Cine Special cameras I and II. Features include explosion-resistant starting switch and wall plug. Unit is designed especially for use with cameras in hospital rooms or wherever ex-

plusive atmospheric conditions may prevail. The unit may also be used with Bolex H16 and Cine-Kodak K100 cameras with special mountings.

Reel Reels and Cans

Eastman Kodak Company, through its retail outlets, are again making available 200- and 400-foot Brown metal reels and cans for those who prefer metal instead of plastic. Cans are 50¢ and 85¢ each without reels, or \$1.15 and \$1.35 with reels.

Company states that the plastic reels and cans will continue to be available.



Dual Cine Lens

Edsall Optical Co., Peekskill, N.Y., announces a unique cine camera lens called the "Dual-Lens" which enables film camera owners to make telephoto and wide-angle shots with one reversible lens, giving them the versatility of a turret camera. Lens slips over regular camera lens. No light compensation is required and lens is color-corrected and hardcoated.

Automatic Printer Fader

Bell & Howell Co., 7100 McCormick Road, Chicago 45, Ill., announces a simple easy-to-install automatic fader for installation on model D or J printers. Use can install the fader without need of sending printer to the factory.

Net price is \$700.00.

(Continued on Page 68)

**PROFESSIONAL
JUNIOR**

-MOST

imitated

tripod in
the world!

They've been standing on their heads, trying to copy PROFESSIONAL JUNIOR Tripod—but nobody can get around our exclusive patented features.

Features which make PROFESSIONAL JUNIOR tops in the motion picture, TV and commercial film world. First choice of professional cameramen. First choice of our Armed Forces.

Is your work "dragging" for want of an outstanding tripod? Get PROFESSIONAL JUNIOR—the price hasn't changed in 15 years. Get it today.



**Professional Junior
GEARED HEAD**

Interchangeable with
Friction Head on
same tripod.



**New Professional Junior Adjustable wood
BABY TRIPOD**

—for friction and geared Heads.
Has substantial shoe and spur.
Measures from floor to flange 25" extended—
17" collapsed.

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.

Dept. A-12-2 • 1600 Broadway • New York City

Season's Greetings

To our friends the world over!



Patent
Pending

• CAMART TIGHTWIND ADAPTER

Modern film editors use the Camart Tightwind adapter to rewind 16mm and 35mm film on cores, prevents scratches and abrasions, winds the film smooth, tight, and even. Why take chances when you can protect your valuable film for a very small investment. Send for descriptive literature. Price: \$29.00, money back guarantee.

• AURICON PRO 600 CAMERA

Auricon's latest development in sound-on-film cameras, now available for immediate delivery. Also a complete line of Super-1200 and Cine Voice single system cameras. Trades accepted.

TIME PAYMENTS ARRANGED.



• NEW WIDE SCREEN VISTASCOPE LENS

Now you can photograph and project 16mm pictures with a single Vistascope lens and get a picture that is twice as wide as it is high. Sharp definition for black and white and color. Only \$125.00.

• BARDWELL-McAULISTER LIGHTS

Complete stock of 750 watt to 5000 watt spotlights and accessories available for immediate delivery. Prices from \$81.00 and up.



The new ZOOMAR-16 Varifocal lens, speed f2.8, coupled viewfinder, range 25mm to 75mm, extremely sharp definition, standard bayonet mount for Cine-Special, takes c-mount adapter for use with other 16mm cameras. Price: \$600.00. Model 16-S, mounted for the Ariflex 16mm camera, immediate delivery. Price: \$579.00.

• ZOOMAR-16 LENS



• SLATE & CLAPSTICK

Still the BEST BUY at . . . \$4.75.



THE CAMERA • MART INC.

1845 BROADWAY at 60th ST.
NEW YORK 23, NEW YORK

PHONE: Circle 6-0930
CABLE: CAMERAMART

FROM **J. G. McAlister**

AN ECONOMICAL FACTORY-DIRECT BUY OR RENT PLAN

SAVE MONEY... *order direct from manufacturer*

SAVE TIME... *order from one source*

SAVE WORRY... *fast, accurate shipment*



*the newest
most advanced
lighting equipment
is made by*

J. G. McAlister, Inc.

Send coupon today for colorful, free catalog brochure "New Dimensions in Controlled Studio Lighting" and complete information on the J. G. McAlister factory-direct, "Buy or Rent Plan!"

J. G. McAlister, Inc.
1117 No. McCadden Place
Hollywood 38, Calif.

Gentlemen:

Please send me free catalog-brochure, "New Dimensions in Controlled Studio Lighting" and facts on the economical, factory-direct plan. No obligation on my part.

NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

Hollywood Bulletin Board



JOHN TOTUS was among first to receive new AISC membership certificates presented at the Society's November meeting by AISC president **Arthur Miller** (center). **Walter Steege** read the roster.



ROBERT BRODINE (center) was one of first to receive membership certificates, being in the "B's" row; the rep of **Bob Pritch** (left), and **Ernest Palmer**.



DEDICATED at its monthly meeting last month was the AISC's new Wall of Fame on which large mounted photos of members who have won Academy Awards for cinematography. (top) adjacent with **Jacques Reno** (right) shown above with president **Arthur Miller**.



ARTHUR MILLER presented **Donald S. Marade** with two volumes of the AISC's Cinematographic Annual. **Marade** was guest of the Society last month, and is president of Delta Kappa Alpha fraternity at the University of Southern California, where he is studying cinema.

A.S.C. Members attending the Society's regular monthly meeting in November were presented with new membership certificates mounted in plaques. The certificates augment the regular Society membership cards. Certificate design was developed by **Arthur Miller**, president of the Society.

Arthur Arling, A.S.C., upon completion of his assignment to direct the photography of "Fearful Decision" at M-G-M, embarked on a six-weeks vacation-tour of Europe with Mrs. Arling. Trip will take the Arlings through Spain, the Riviera, Mediterranean, and Switzerland.

Edward Colman, A.S.C., last month started his fourth consecutive year as director of photography of the "Dragonet" TV film series.

First film of the new series was shot almost entirely on location at the Los Angeles Police Department Administration Building, and featured a long dolly shot down corridor of the building and use of Plus-X film.

To date, Colman has shot 141 "Dragonet" films plus the "Dragonet" feature at Warner Brothers studios.

Jackson J. Ross, A.S.C., and **Arthur Miller, A.S.C.** President, addressed the Cinema Class at the University of

Southern California on December 2nd. Mr. Miller, who was voted to Honorary Membership in the University's Delta Kappa Alpha fraternity sometime ago was presented with a membership certificate.

The American Society of Cinematographers admitted the following to active membership last month:

Gordon Ayl, Jockey Feindel, Joe Novak, Lester Shoer, Fred West, William Whitely and Charles Van Enger.

J. T. Dougherty and **V. M. Sutter**, both with DuPont Photo Products division, were admitted to Associate Membership in the Society.

FILMAGNETIC

AN *Optional* FEATURE

AVAILABLE FOR FACTORY INSTALLATION
ON ALL NEW OR EXISTING AURICON
OPTICAL SOUND-ON-FILM CAMERAS

Auricon
Hollywood

U.S. REG.
U.S. PAT. OFF.

Presenting

AURICON

FILMAGNETIC

Auricon proudly presents "Filmagnetic" High-Fidelity sound-on-film Recording, for lip-synchronized Talking Pictures and Music of Quality, on 16 mm black and white or color film pre-stripped for magnetic sound before it is exposed to light. "Filmagnetic" sound and optical picture are recorded Single System on the same film at the same time! The "Filmagnetic" Unit, installed at the Factory in any Auricon Camera, can be temporarily removed without the use of tools, thus providing a choice of High-Fidelity Optical or Magnetic sound-tracks. Your pre-stripped film with magnetic sound lip-synchronized to your picture, passes through the normal picture-development and is played back on any 16 mm Magnetic Sound Projector, including the Ampco, B&H, RCA, and others.

"Filmagnetic" Outfit complete ... \$179.00

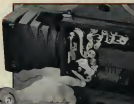
PLEASE MAIL COUPON BELOW FOR FREE INFORMATION ...



*FILMAGNETIC: SOUND FOR COLOR OR BLACK & WHITE



Auricon
Hollywood



"Filmagnetic" Twin-Head Camera Recording Unit, with Record and Instant-Monitor Magnetic Heads, which automatically open for easy threading ... complete with Model MA-10 Amplifier, \$475.00 installed on any new Auricon Camera at the Factory. Small extra installation charge on existing Auricon Cameras.

"Filmagnetic" 3 Input Amplifier, Model MA-10, with High-Fidelity Microphone, complete Gables and Batteries, in a Cowhide-Leather Carrying Case. Super-compact, weighs only 7 pounds, carries easily with shoulder-strap during operation!

GUARANTEE

All Auricon Equipment is sold with a 30 day money-back guarantee.

You must be satisfied!



AURICON Division
BERNDT-BACH, INC.
6902 Romaine Street
Hollywood 38, California

16 MM SOUND-ON-FILM SINCE 1931

☐ Please send me free information on "Filmagnetic" equipment for Auricon Cameras.

☐ Without obligation, please send me cost of installing "Filmagnetic" on my Auricon Model _____ Camera.

NAME _____ TITLE _____

FIRM _____

STREET _____

CITY _____ ZONE _____ STATE _____



U.S. PAT. OFF.

U.S. PAT. OFF.

U.S. PAT. OFF.

U.S. PAT. OFF.

ARRIFLEX

New 35 mm Model 2A

With 180° Shutter

**A TRULY GREAT
CAMERA**

for TV, Newsreel
and commercial
films



For tough and trying assignments, ARRIFLEX 35 is a class by itself. Reflex focusing through photographing lens while camera is operating—this is just one outstanding ARRIFLEX feature.

Equipped with bright, right-side-up image finder, 6½x magnification. Solves all parallax problems. 3 lens turret. Variable speed motor built into handle operates from lightweight battery. Tachometer registering from 0 to 50 frames per second. Compact, lightweight for either tripod or hand-held filming. Takes 200' or 400' magazine. Write for free folder.

Blimp now available.

16mm ARRIFLEX also available.



YOUR QUESTIONS

ANSWERED BY JACKSON J. ROSE, A.S.C.

Q Questions of general interest will be answered in this column. We regret that demands on the editor's time will not permit personal replies.—Ed

Q Some of my professional cameramen friends use an amber viewing glass, while others use a blue one when shooting black-and-white film. What is the function of each and which is the best to use—A. G., Gales.

They are both useful, and each is used for a different purpose. The amber glass is used to determine the densities of the various edges in a scene with relation to each other. The blue glass is used principally when arc lamps are used for set illumination, and also to check density of scene on background screen when shooting process shots.

Q What does the symbol "f" mean with relation to the stops on a lens?—P. J., Fresno.

The "f" symbol stands for focal ratio. That is, the ratio of the diaphragm opening to the focal length of the lens. To determine the "f" number of a given lens, divide the focal length by the amount of the diaphragm opening. For example: if lens is 4" in focal length and the diaphragm opening is 2", the answer, which is the "f" stop figure, is 2, (4" divided by 2").

Q Some of the films I have seen on television have been made as early as 1912. Are the cameramen who shot these films still active in Hollywood film production?—H. H., N. Y.

You undoubtedly refer to the pictures in the "Movie Museum" TV series. Yes, many of the veterans are still photographing features or TV films in Hollywood, among them are Joseph Rottenberg, John Seitz, George Folsey, Lucien Andriot, Robert Planch, Robert DeGrasse, Hal Mohr, Gil Warrenson and Karl Struss—all members of the American Society of Cinematographers.

Q Exactly what is the function of the Special Photographic Effects department in a studio?—A. G., Ariz.

The Special Photographic Effects Department today creates the so-called trick effects that in the old silent days were done by the cameraman right in the camera as the picture was being filmed.

Today this work is highly specialized and involves a great deal of complex

precision equipment. The department not only does the work better but also speeds up production on the set by relieving the director of photography of the responsibility of doing trick work on the set.

Q I have a Bolex B-16 cine camera. What is the shutter opening and what exposure does it give?—P. M., Hawaii.

This information is probably available in your camera instruction manual. It's also available in the American Cinematographer Handbook. The Bolex camera shutter opening is 190 degrees. The exposure rate, of course depends upon the camera speed at which you shoot. At 16 frames per second the exposure per frame is 1/36th of a second; at 24 f.p.s. it is 1/64th of a second.

Q The action in my home movie films is sometimes very "jerky" and at other times too slow. What is the reason for this?—K. P., Conn.

There could be any number of reasons for your trouble. If you mean the action of the people within a scene is rather stiffed it is possible that you shot your scenes at one speed, then projected them at a faster speed. In other words, if you shoot at 8 f.p.s. or 16 f.p.s., then project at 24 f.p.s., your scene action will be too fast and the action "jerky."

Keep your camera speed and your projection speed the same for best screen results.

Q What filters do the professional cinematographers use to get those beautiful and dramatic cloud effects in black-and-white?—A. A., Ariz.

Where parchment film is used and the sun is bright and the sky clear blue, a red filter, such as a 23A, will produce the necessary overcorrection to render cloud formations fleecy white against deep, dark skies. Such contrasts can rarely be obtained where there is haze or fog present in the atmosphere.

Where an extreme effect is desired, as is often the case where night scenes are filmed in the daytime, infra-red film is used.

The use of any filter on the camera, of course, makes it necessary to compensate for the light held back, by opening up the lens. The amount of exposure increase depends upon the filter factor, and for this information refer to any reliable filter factor chart.



Congratulations WALT DISNEY!

*On your newest and most exciting
True-Life Adventure feature...*

THE AFRICAN LION

presented by TECHNICOLOR

now in release

We are proud that the

ARRIFLEX 16mm camera and KILFITT KILAR

Tele-lenses played an important part
in the filming of this dramatic feature.



KLING

PHOTO CORP. 235 Fourth Avenue, New York 3, N. Y.
7303 Melrose Avenue, Hollywood 26, Calif.

Sole U.S. Distributor for Arriflex Camera, Arri Tripods
and equipment - Kilfitt Kilar Lenses.

in
the
East
it's...

QUALITY
is our business
Plus
personalized
service

MOVIELAB



ROUND-THE-CLOCK SERVICES

Negative Developing
First Print Department
Ultra Violet and
Flash Patch Printing
16mm and 35mm
Release Printing
Kodachrome Printing
63 Editing Rooms

SPECIAL TV SERVICES

For Color it's

Rainbowlab, Inc.



**Now
Celebrating
Our 25th
Anniversary**

MOVIELAB FILM LABORATORIES, INC.

619 West 54th Street, New York 19, N. Y. JUDson 6-0360

WHAT'S NEW

(Continued from Page 680)



All-Angle Dolly

J. C. McMaster, Inc., 1117 No. McCadden Pl., Hollywood 38, Calif., has acquired the manufacturing, sales and rental rights to the original Dual Steering, All-angle Camera Dolly formerly manufactured by Stevens Rentals, Hollywood. Manufacturing has begun on additional units which are to be made available on rental to motion picture and TV studios throughout the country.

Matte Box

National Cine Equipment Co., Inc., 209 West 48th Street, New York 36, N. Y., announces a new combination matte box and sunshade for use with 35mm cine cameras and all professional and non-professional 16mm cameras. Unit provides for use of 2" square and 3" square glass or gelatine filters, and various effect devices, such as gauzes, diffusion filters, effect filters, etc.

The matte box is made of aluminum castings. Support rods are of dural. The base will fit all cameras. A feature is that it may be used with the Cine-Special without the need for dismounting the camera whenever film magazines are to be changed. List price is \$44.95. Descriptive literature is available.

Film Processors

An economical, low-priced line of automatic 16mm reversal, negative-positive film processing machines is announced by Milford Film Machine, P.O. Box 343, Milford, Conn. Equipment features daylight operation, quality controls, slip-clutch film drive, and automatic operation. Prices start at \$800, F.O.B. factory. Descriptive brochure is available.

Film Coding Machine

Hollywood Film Company, 966 No. Second Street, Hollywood 38, Calif., offers a new coding machine for 16mm and 35mm film. Both models will code up to and including 3,000 ft. reels of film.



Happiest

**NEW YEAR
RESOLUTION
YOU'LL EVER
MAKE:**

RESOLVED:

to try out thoroughly during 1956
the personalized service and extra
attention which come as an auto-
matic bonus with every job by
Capital Film Laboratories



PRINTS BY CAPITAL

CAPITAL
FILM LABORATORIES, INC.

1905 Fairview Ave., N. E., Washington 2, D. C.
Telephone: LAwrence 6-6634

SCOTCH
TRADE MARK

- Magnetic  Laminates
- RCA Sound Recording
- Editing
- Processing
- Printing
- Service Studies

ONE CAMERA

16mm or 35mm

in 10 SECONDS!

Camerette 16/35

Reflex Motion Picture Camera

The perfect camera for the motion picture filmmaker working in both 16mm or 35mm color or black and white.

LOOK AT THESE ADVANTAGES—

- The same lenses, same motor drives, same sound blimp and accessory equipment used for both 16mm or 35mm — to convert simply change the magazine
- Precise rugged movement
- Reflex viewing
- 200 degree adjustable shutter
- Divergent three lens burst
- Automatic film gate 400' magazine 16 or 35mm — the 16mm magazine will accommodate daylight speeds as well as standard low speed
- Light weight — only 14 pounds with 3 lenses, 400' magazine, and 4/3 volt motor

Write for brochure



Camerette

patents instant-math

Manufactured by Ets. Cine, Sclat, Paris



Psychology And The Screen

By HERB A. LIGHTMAN

WE are often prone to think of film production as a blending of mechanical and creative arts. It is surely all of that, but there is something more that goes into the making of a successful film—an intangible essence that reaches out to fingers and makes them laugh or cry, cheer the hero, hate the villain (sub-consciously, at least). It is something you cannot put your finger on, but it must be present if an audience is to react appreciatively to a motion picture. This abstract force is based upon an understanding of people and their actions, how they think and react, why they do what they do. We have come to know it by the name psychology.

Once a step-child in the realm of pseudo-science, psychology has in this century reached scientific maturity and has incidentally become an integral element of motion picture-making. Star names, smooth production, lavish sets are no longer sufficient to guarantee the success of a film. The novelty of lavishness has worn thin, and producers now realize that they must give an audience something it can "sink its teeth into," a story of substantial fabric based on sound psychology. This is especially significant in view of the fact that film audiences, especially in America, do not go to motion picture theaters to think. Rather, they go with the expectation of taking part in a vicarious emotional experience. As a result, our cinema appeals not to the intellect, but to the emotions.

Film production consists of many varied elements: script, camera, direction, sound, music, editing, etc. We may visualize the film itself as a symphony with all of these elements as instruments playing together to produce a harmonious dramatic pattern, and belated to extract certain euphoric responses from the audience. The point of balance is often exceedingly fine. Sometimes in the midst of a tensely dramatic scene an audience will begin to laugh for no apparent reason. This inappropriate reaction can always be traced to faulty psychology in some phase of production. That is why intelligent (and successful) producers now place their production with careful attention to correct psychological approach.

Psychology applied to the screen acts as a kind of "sooth sense." The audience should react to it without being conscious of the machinery behind the scenes. Also, if too frequently used, psychological touches tend to lose their effectiveness. "Citizen Kane," directed by Orson Welles and strikingly photo-

graphed by the late Gregg Toland, was technically one of the finest pictures ever made. Violating all rules of cinematic convention, it introduced many original techniques to the screen and learned heavily on psychological approaches to gain audience reaction. However, these were sequences when too many of these devices were used at the same time, vying for audience-attention in such a way as to cloud the dramatic issues presented. Too much of a good thing weakened the impact of an otherwise masterful film.

Association of ideas plays an important part in stimulating audience reaction. Each member of an audience will tend to associate certain phases of the photography with episodes out of his own experience, and will then accept the various ideas and signals that follow, reacting to them and experiencing a state of suspense concerning the outcome of separate sequences and the film as a whole.

It is the sustaining of strong mood that holds an audience firmly in grasp and leads it to accept a pattern of facts which, if presented singly, would not be credible. Generally, inept handling of these values in the past has resulted in a common American aversion to motion picture themes based on fantasy. And yet, Americans are basically an imaginative people and will accept well-presented fantasy.

Cinematic symbolism is a psychological device that is most generally abused on American audiences. European filmmakers delight in showing wind-swept fields and flashes of lightning to symbolize clashes of emotion. It has become a cliché to show waves crashing against a rocky shore in order to represent the release of human passion. Such symbolism is either too farfetched or downright melodramatic and American audiences much prefer the more direct approach.

The technique most responsible for psychology applied or misapplied to the motion picture is, of course, the director. He is the conductor of our cinematic symphony. He is the one responsible for the careful blending of all the elements that go to make up the production.

A good deal of the power of action and suspense films is created in the cutting room. It is here, too, that the intangible but psychologically essential elements of pace, rhythm, and tempo are injected into the film. Editing requires a certain "feel" for dramatic values plus a keen understanding of audience psychology.

END



CAMERETTE

*Now Available with Two
Important New Features!*

- ★ Adapted for CinemaScope
- ★ Sound Blimp with Reflex Viewing

Now for the first time—a lightweight camera for CinemaScope photography—the 35mm Camerette with CinemaScope aperture, with full CinemaScope field visible through the reflex viewer. Auxiliary turret and matte for regular photography.

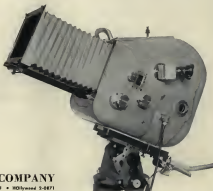
New magnesium alloy blimp with viewing through the taking lens at all times through the Camerette's reflex finder, making a lightweight, fully blimped combination 16mm or 35mm camera. Synchronous motors—110-v single phase, 220-v three phase.

ONLY THE CAMERETTE HAS

- 1 Ability to use both 16mm and 35mm film in one camera.
- 2 Reflex viewing through the taking lens at all times for both film sizes.
- 3 Sound blimp with reflex viewing, making a fully blimped, instantly interchangeable 16mm or 35mm camera.

Patents Coaction-Marked
Manufactured by Solvik, Paris

Write for descriptive literature



BENJAMIN BERG COMPANY

1610 N. VAN NISS AVE. • HOLLYWOOD 38, CALIF. • HOLLYWOOD 3-8871



need location lighting...fast?

*Call on Jack Frost, one of the
nation's largest suppliers of
temporary lighting facilities.*

Wherever you are, whatever your lighting needs, you can depend on Jack Frost's expert handling and complete range of equipment, from a 100 watt inkie to 225 amp arc with mobile power plants. In the studio too, we can supplement your present equipment to meet any situation, anywhere. We've been doing it for years for many of the top shows.

Our service includes complete installation and removal at one low cost.

free estimates

Write or wire for a free estimate and
a Free Catalog of Equipment.

JACK A. FROST

Dept. AWC

234 Piquette Ave., Detroit 2, Michigan
425 Burnaston Road, Toronto 18, Ontario

The One-Stop Source Of Supply

S.O.S. 16/35mm TITLER and SPECIAL EFFECTS KIT TG IV



for
professional
results!

For producing the widest range of titles, ink films, cartoons, animation, etc. Takes most types of movie cameras. Horizontal and vertical operation. Table adjustable north, east, south, west. Front and rear illumination. Title board size 7 1/8" x 9 1/8", over all dimensions 40" x 15" x 12", weight 40 lbs. Complete with all accessories. Write for illustrated brochure.

MODEL TG II, 16mm \$139.00

MODEL TG, 16, 35mm \$198.50

MODEL TG IV, 16/35mm (Electric) \$295.00

IMPROVE YOUR FILM TITLES with the TEL-Animaprint

The Answer to Economy in Animation

For MOTION PICTURE PRODUCERS, ANIMATION SPECIAL EFFECTS LABORATORIES, TV STATIONS, ADVERTISING AGENCIES, ETC.

The first sensibly priced Hot Press Title Machine for high quality, fast rendering. Prints dry from colored foil for instant use. Acme pages give perfect registration on paper or acetate cells. Prints all colors. TEL-Animaprint tools for top techniques—greater dollar for dollar value in the industry!

ONLY
\$395

Write for brochure

TEL-Animaprint products made
factured and distributed in
strictly by S.O.S.



The Profitable All-Purpose Film Processor

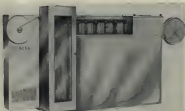
Bridgematic JR.
REVERSAL DEVELOPING MACHINE

BRIDGEMATIC JR. REVERSAL assures quality pictures in minutes—Spot news and sports events can be shown immediately after they occur. This is the perfect All-Purpose Processor of a price anyone can afford. Reversal speed 1200' per hour—also does negative and positive film. Light Tight compartment for daylight operation—has 8 stainless steel tanks—completely automatic. Dry-to-Dry!

MODEL R \$1995—Includes basic Bridgematic features such as overdrive, nylon bearings, oil syringe, built in drybox, blower, heating elements, 450' enclosed magazine and daylight compartment.

MODEL RA \$2495—Same basic features of Model R plus continuously variable speed control, 1200 R enclosed magazine, feed in and take-up elevators.

→ \$160 PRICE INCREASE EFFECTIVE JAN. 1, 1956
Order Now and Save!



16mm Automatic Reversal—for TV Stations, Photo Finishers, Industrial or Documentary Producers, Universities, Etc.

TAKE ADVANTAGE OF S.O.S. TIME-PAYMENT PLAN—Trade-In Accepted. Send List.

"The Department Store of the Motion Picture Industry"

S.O.S. CINEMA SUPPLY CORP.

102 WEST 52nd ST., NEW YORK 19, N.Y.
Phone: PL 6-0440 Call: SO5080



WESTERN BRANCH — 6331 Hollywood Boulevard, Hollywood 28, California — Telephone: HOLLYWOOD 7-9102



ARTHUR EDSON, A.S.C.—was Douglas Fairbanks' favorite cameraman



LEE GARMES, A.S.C.—photographed many of Von Sternberg's productions



CHARLES ROSHER, A.S.C.—filmed most of Mary Pickford's early-day silent films



HAL ROSSON, A.S.C.—Gloria Swanson considered him the best in the business



JOHN SEITZ, A.S.C.—his photography contributed to Valentino's success

Five Veteran Cinematographers Honored With "George" Awards

Men who filmed the epics of the silent days cited along with veteran directors, actors and actresses at the George Eastman House Festival of Film Artists.

A NEW AWARD for outstanding achievement in motion pictures was inaugurated last month, when the George Eastman House memorial to the late George Eastman of Rochester, New York, presented "Georges" to twenty well-known motion picture personalities for their outstanding contribution to motion pictures during the memorable "silent" era of 1915-1925. Honored at the award presentations were five cameramen, five directors, five actresses and five actors.

The five cameramen are Arthur Edson, A.S.C., Lee Garmes, A.S.C., Charles Rosher, A.S.C., Hal Rosson, A.S.C., and John Seitz, A.S.C. Arthur Edson was for many years Douglas Fairbanks Sr.'s cameraman. He directed the photography of such memorable Doug Fairbanks' thrillers as "The Three Musketeers," "Robin Hood," and "The Thief of Bagdad." Lee Garmes photographed many of Von Sternberg's feature films

and is probably best remembered for his outstanding black-and-white photography of "The Duchess and the Waiter," starring Adolph Menjou.

Charles Rosher, who came to Hollywood from England, where he had won wide renown as a photographer, became Mary Pickford's favorite cameraman. Among the well-remembered Pickford films he photographed were "Heart of the Hills," "Pollyanna," and "The Hoodlum."

Hal Rosson became famous during the early twenties as Gloria Swanson's favorite cameraman. Following the floundering photography Rosson gave his first Swanson film, the famous and popular Gloria never allowed another cameraman to photograph her until contractual terminations sent Rosson to another studio. Hal photographed Gloria Swanson in such features as "Mahabaddie," "Zaza," and "A Society Scoundrel."

(Continued on Page 136)



SHOOTING a close sequence on location at Southbay Harbor, Malibu. Behind the 55mm CinemaScope camera mounted on a dolly at right is director of photography Charles G. Clarke, A.S.C.



ANOTHER VIEW of the same action. Here Clarke is lining up the shot which involves gliding across on a raft of scuba line. Clarke, incidentally, is first photographer to use 55mm cameras on a feature.



CLOSEUP OR LONGSHOT, the new Twentieth Century-Fox 55mm CinemaScope camera does a remarkable job first time out photographing "Caracas!" with great clarity, depth and definition.



ON SCREEN like this, TOP's 55mm CinemaScope camera produces an excellent image with little or no distortion, straight horizontal lines, and good definition in the extreme edges of the screen.

AND NOW 55MM

By CHARLES G. CLARKE, A.S.C.

IT WAS A TREMENDOUS personal thrill and at the same time a somewhat cautious experience to be handed the cinematographic assignment on 20th Century-Fox's "Caracas!" the first motion picture to be filmed in 55mm CinemaScope. Pioneering any new process discloses many new problems. When you are told to "shoot" a multi-million

dollar production in a process that only a few weeks before was the object of drawing-board scrutiny, a few inner qualms are understandable. It is a compliment to those of us of the photographic branch that our studio executives take it far greater that we will carry an assignment through to success. In the beginning it was decided to

film "Caracas!" in both 55mm and the standard 35mm CinemaScope. This meant double set-ups for each shot. When the results became available for screening, our studio decided the 55mm version was no longer required, and thereafter we filmed the production only in 55mm CinemaScope. We opened "Caracas!" on location at Southbay

Harbor, Maine. The camera we used was a conversion of the old Fox Film Company's 70mm "Grandeur" wide screen camera developed some 25 years before. The aperture and race plate had been converted to 35mm, but many other details, such as the magazines, still retained the 70mm size. At first we encountered the normal mechanical difficulties to be expected with a new process on a made-over camera. But day by day we remedied these problems and eventually production commenced with normal 35mm operation. Meanwhile, the laboratory was overcoming its problems and perfected its technique to the point where 55mm processing is at an end and the technique is definitely here to stay.

From the inception of CinemaScope by 20th Century-Fox in 1953 the studio, under President Spyros Skouras, Vice President in Charge of Production Darryl F. Zanuck and Technical Supervisors Earl Sponable, A.S.C., and Sol Balpin, A.S.C., has striven constantly to improve the process. During the past two years of film production at 20th Century-Fox we have had the advantage of the improved coupled CinemaScope lenses which replaced the original anastigmatic type anastigmatic lens.

It was early realized that because of the great magnification of the film on today's huge motion picture screens, greater definition had to be obtained somewhere. The theories offering wide-screen projection, were, in effect, enlarging film beyond its normal resolution power. A logical step was to start with the negative. The film manufacturers have done about all that can be immediately expected with modern color films, so greater definition could only be obtained by going to a larger negative size. Hence, after experimenting with various size film—70mm, 65mm, etc.—it was decided to increase the present CinemaScope film by four diameters. This promised that maximum quality and sharpness could be obtained within the realm of the photographic objectives and portability of camera equipment.

At a cursory glance one would assume that doubling the width of 35mm film would result in 70mm film. A feature of the basic CinemaScope system is the narrower sprocket perforations, which, being smaller, allows more film for the picture image. These same perforation dimensions are used in the camera in this system, hence the result comes out 55mm.

At present, while 55mm projectors are being designed, the only prints available are taken from the 55mm negatives and reduced to standard 35mm CinemaScope. These prints can be shown in any theater equipped for the showing of

standard CinemaScope without any modification necessary to projection equipment. Even with these reduction prints, the projected film is completely free from grain, and the clarity, depth and definition has been improved up approximately 90 per cent over standard 35mm CinemaScope. It is estimated that when 55mm projectors are available, the clarity, lack of distortion and definition will increase another 25 per cent over that of the "reduced" 35mm prints.

The new 55mm CinemaScope negative is exactly four diameters greater in size—twice the width and twice as high—so that reductions are made without altering the composition of the original negative. Actually this is greater negative area than afforded by some of the other wide films now in use or proposed, for while they employ a 5 or 6 perforation pull-down, the 55mm also has an 8-perforation or double frame height. Anastigmatic lenses create the CinemaScope 1 to 2.50 ratio from the conventional frame size.

The photographic lenses are doubled in focal length over what is normally used in 35mm CinemaScope. In filming "Carousel" I used 75mm, 100mm, and 152mm coupled CinemaScope lenses. The 100mm is considered the "normal" lens, which was used for the majority of scenes. We used the 152mm lens for close shots and the 75mm when an extreme wide angle was required. This naturally suggests a problem of depth of focus, and after filming "Carousel"

under every possible type of condition I found the following true:

When the principal points of interest are sharp, such as the foreground actors, it is not necessary—in fact it is an advantage—that the background not be pinpoint sharp. This creates a quality of roundness or stereoscopic effect that makes the actors or foreground objects stand out sharply from the background. Not so many years ago we cinematographers used to open our lenses and cut down the shutter to obtain this same effect. This is not to imply that there is no depth in our 55mm CinemaScope shots. Conversely, all who have seen the first demonstration reels of "Carousel" have commented favorably upon the remarkable depth. (Incidentally, I hear that these demonstration reels will be made available for screening by producers and exhibitors, and others concerned, in the major cities of the world.) The longer focal length lenses normally permit a reduction of stop which compensates in some extent for the shallower depth. This has been borne out in shooting studio interiors where I have found I could stop down slightly more at a given light level.

It seems to be a characteristic of CinemaScope lenses that they tend to carry focus forward. As we learn this by seeing the results on the screen—whether in 35mm or 55mm CinemaScope—we drop the focus back of the principal action so that the true focus

(Continued on Page 726)



CHARLES S. CLARKE, A.S.C., who directed the photography of 20th Century-Fox's "Carousel," is shown here with the studio's prototype 55mm CinemaScope camera, which was used to film the entire production. Using the camera was as simple as using a 35mm CinemaScope camera, according to Clarke.



THE CAMERA "BOSS" ON a scene for Twentieth Century-Fox's "Rains of Ranchipur," as the camera crew watches every detail to insure a satisfactory take. From right to left are Milton Krasner,

A.S.C., director of photography, operator Paul Lockwood, Best assistant Al Leberitz (dark shirt), and Larry Prather, second assistant cameraman. Focused on scene is studio's standard CinemaScope camera.

A Day With A Camera

An observer's account of a day spent with a camera and crew shooting scenes for "Rains of Ranchipur" of Twentieth Century-Fox studio.

By ALLAN SALTER

THIS is a story of a day in the life of a studio motion picture camera. A Twentieth Century-Fox CinemaScope camera, it bears the identification number 15, and it recently completed the filming of "Rains of Ranchipur" under the direction of cinematographer Milton Krasner, A.S.C.

I followed this camera and its crew through an entire day's work recently,

starting at 7:45 one morning morning when I joined Milton Krasner, assistant cameraman Al Leberitz and operator Paul Lockwood. I stayed with the camera and its crew the entire day as it photographed scenes for "Rains of Ranchipur," right up until around 6:00 p.m. that evening. I learned a great deal about feature film photography, but most important, I was able to ab-

serve first hand how the entire camera crew functions as a team in the production of a picture.

Like so many of the people in this industry who are not on what might be called "intimate" terms with a professional motion picture camera, I had always just sort of taken the big black "Kodak" for granted. Most everyone

(Continued on Page 131)



DIRECTOR of photography Milton Krasser, A.S.C., uses his viewing glass to check the set lighting.



FIRST ASSISTANT cameraman Al Liskovitz makes certain the aperture plate is clean before and after every shot.



MILTON KRASSER keeps an eye on set lighting progress as the crane-mounted camera is being readied for the first shot.



AN INTELLIGENT and experienced gaffer is the cameraman's best friend. Here Krasser and Long give lights final check.



OPERATOR Paul Laskovetz handled the camera during the takes.



IT'S A BIG set but the Cinecittà boys get it all.



FINE EXAMPLE of effect lighting by Frank Pinner, A.S.C., for a scene in "Not as a Stranger." Note how well the natural light falling from the table lamp has been controlled.



THE EFFECT of candlelight falling on the faces of two players is successfully achieved here by Joseph LaSalle, A.S.C. Authenticity of such an effect depends upon proper direction of light and the right quality and volume.

Use Of Effect Lighting In Commercial Film Production

By CHARLES LORING

BUSINESS AND INDUSTRIAL films often require more attention to effect lighting than is necessary in entertainment films in order to lend greater visual impact to the product or service such films aim to exploit. Effect lighting, which might also be very properly termed "atmospheric" lighting, is exactly what the term implies, lighting that creates a desired visual or atmospheric effect in the scene, such as night, day, dusk, candlelight, etc. It is most effectively demonstrated in the average theatrical feature film, which affords the aspiring industrial cinematographer his best means of study of the subject.

The function of effect lighting in industrial films is not to achieve results that are tricky or consciously "arty," but to add realism and drama to the presentation of the idea, service or product which the film portrays. Today, the best industrial films show a sharp tendency to get away from the stereotyped "business film" approach of yesterday. The producers of these films are concentrating with greater emphasis upon realistic human interest situations against

which to showcase the client's products or service. To the production technician, this means that sunlight coming through a window in a scene must really look like sunlight; that firelight from an open fireplace must flicker realistically upon the faces of players appearing in the scene—perhaps toasting the client's wares; and that when a table lamp or floor lamp is shown as the source of light in the scene, the players must appear to be lit by these same lamps.

In developing true effect lighting, the first rule that should be observed is that such lighting must never call attention to itself, it might be subtle. Even in the more extreme cases, the lighting should always be subordinated to the action, in such a way that it enhances or complements it, but never overwhelms it.

Let us consider first the use of lamps or other lighting units which appear in the scene as apparent lighting sources—units such as a chandelier, floor lamp or table lamp. These are known as "practicals" in the parlance of movie making and they are included in this discussion

because they require more precise handling than off-stage units used for illumination.

A lamp or lighting unit actually appearing in the scene as part of it must give the illusion of being the source—or part of it—by which the players and the set itself is lit. It must therefore be brighter than anything which it illuminates. In order to achieve this effect, strong photoflood lamps replace the customary light bulbs and a suitably dark lampshade is used so that the intense light from the photofloods will not "burn up" that area of the scene. Spot-

(Continued on Page 724)



THE CRYSTALLINE is an effective tool for releasing certain lighting effects on walls, etc. The "cushie" is used successfully close to wall here only to show the lighting pattern obtained.

EASTMAN

PROFESSIONAL

MOTION PICTURE

FILMS

W. J. GERMAN, Inc.

John Street
Fort Lee, New Jersey

6040 N. Pulaski Road
Chicago 30, Illinois

6677 Santa Monica Blvd.
Hollywood 38, California



hand rewind



negative rewind set



differential rewind



power rewind



precision film editing equipment

HOLLYWOOD FILM COMPANY

NO 21014
518 NO. STWARD ST.
HOLLYWOOD 28
CALIFORNIA

synchronizer



split reels



film racks



editing table



vest cut



reel base



rightwind



film storage cabinet



at better dealers everywhere

New Portable VistaVision Camera

New lightweight job offers same flexibility in shooting as when using on Eyemo or Arriflex for standard 35mm.

By ARTHUR ROWAN

THE "HAND-HELD" camera, so-called, still is one of the important tools in feature film production. It provides the cameraman with a compact, lightweight camera for use in locales where the larger studio camera cannot be used, on remote location exteriors where it is almost impossible to bring in the larger camera, or for making special closeup shots as in fight scenes, boxing matches, etc. In standard 35mm film production, such cameras as the Eyemo, Arriflex, Cammerte, Fairchild, etc., are used.

When Paramount studio developed and put into use the revolutionary new VistaVision camera, which has the negative traveling horizontally instead of vertically through the camera, it automatically created a need for a light, hand-held version of the same camera for production purposes. The studio's technical departments immediately set to work on the problem, and they recently perfected a hand-held, double-frame VistaVision camera having the

ultimate in compactness and simplicity. Its net weight with a loaded magazine is but 17½ pounds. The compact electric motor is driven by 28 volts of D.C. current, which may be supplied by power pack, storage battery, or a convenient 10½ pound battery belt worn by the camera operator. This battery belt has a capacity that will operate the

(Continued on Page 728)

CAMERAMAN Ted Gaskins (top, right) is shown operating the new hand-held VistaVision camera. Note carry handle on front of camera. PHOTO AT LEFT shows close-up of camera mounted in camera carrier which features control speaker feed and release.



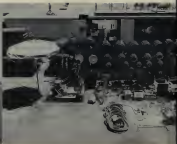
PHOTO ABOVE shows ease with which new portable VistaVision camera may be used in any position. Net weight with loaded



magazine is only 17½ pounds. Camera motor is driven by power supplied by 28-volt battery belt worn by operator.



VIEW of some of the equipment carried in the special transport designed by author for motion picture unit of the Douglas Aircraft Co., Inc., Santa Monica, Calif. Rolling around top gives protection to cameramen when shooting there is collapsible.



ANOTHER VIEW of the inventory of equipment, each piece of which fits snugly into its allotted space within the van. Here also may be seen the smaller of the two view compartments, and the 700-pound dolly with Mitchell camera mounted in place.

Movie Studio In A Truck

All the equipment necessary for full-scale film production by Douglas Aircraft Company is transported to locations in a specially designed mobile carrier that provides ready accessibility to any item, be it camera, lamp or dolly.

By **FRANK J. ROH, JR.**
Douglas Aircraft Company, Inc.

FILM PRODUCTION in the aviation industry today demands the same equipment and facilities that the major studios have found important to speedy and economical film making. This is especially true because much of this film production, which is documentary in character, is done on location rather than in a studio. Some examples of our recent production work at Douglas Aircraft Company in Santa Monica include a documentary of the global flight of the leased Douglas C-124's from Korea to Germany, World Record Speed Run of the F4D "Skyray" at Sault Ste. Marie, and the recent 500 kilometer closed course World Record Speed Run at Edwards Air Force Base in October, 1955, by the Navy's Midget Attack Bomber, the A4D "Skyhawk." In addition, of course, there was

the usual motion picture assignments that come to us daily such as recording some new phase of aircraft production, testing, engineering, first flights of new crafts, and aerial records of all planes flown in test flights.

Long ago we recognized the need for a suitable mobile unit that would enable us to transport all the necessary production equipment for the type of work we do, yet one that would be so planned that almost every item equipped would be readily accessible without the need for unloading the carrier entirely. Moreover, we required mechanical assistance for loading and unloading such heavy pieces of equipment as our 700-pound camera dolly, heavy lighting units, etc. Last but not least, the unit should provide as the most a shooting platform that

would permit us to photograph from sufficient height in order to properly cover such action as plane takeoffs and landings. So, we set about designing and building just such a mobile unit. The complete job is illustrated in the accompanying photos.

The particular problems encountered by the documentary motion picture unit vary greatly with each set-up, therefore, taking this into consideration, and keeping the keynote of accessibility for all the equipment as the most desirable feature, the design of the truck was worked out with some excellent help from Standard Carriage Works of Los Angeles, who had previously built many transport units for the motion picture industry. Standard Carriage was very interested in our problems and worked closely with



INSIDE VIEW of van showing how each piece of equipment is secured in place, arranged in orderly manner. At right is workbench for making "on location" repairs to equipment. Unit is 17' 5" high, 8' wide, 24 1/2' long and weighs 22,962 pounds when fully loaded.

as in designing a compact mobile unit that would contain the following: a shooting platform with collapsible railing, a complete work shop, portable generator to supply 110V power, film storage, etc.

Starting with a standard cab-over-engine Ford truck, the chassis was lengthened 30", and the special box or van body was then constructed. Each lamp, stand, length of cable, etc., was carefully measured in relation to the interior dimensions of the truck body. Finally a two-section body was devised best, i.e., a small forward section for storage of all the stands, reflectors and the 115V auxiliary power plant, while the rear, or larger space would be used for the lamp heads and camera equipment, work bench, film storage, etc.

The interior design was worked out through careful study of the particular needs of the company's motion picture unit in relation to location and the accessibility, in that each single unit of equipment had to be instantly removable whether it was the huge Mole Richardson 10K's or the babies and their Blue Comet boom, or one of the dycrans; so the design for the interior started with the placement of the two largest lamps, the 10K's. It was decided to place these as near the center of the truck, fore and aft, as possible. They were located up against the dividing wall between the forward and aft sections. The smaller lamps were hung on individual brackets on this forward wall.

Then the sensors were placed individually on the floor along the left side of the van opposite the work bench. The junks were mounted individually above the sensors, leaving room for measuring two of the booms between them.

All-steel welded construction throughout makes this an ideal set-up as can be

ascertained from the accompanying photographs, for each mounting is rigid and becomes a part of the van with all the lamps actually resting on rubber shock mounts.

The camera dolly rests in the center of the van and is held firmly in place. The floor is reinforced with 1/2" steel plate to prevent floor sag at this point. Also, there is an Aushasy hydraulic lift gate at the rear to aid in loading and unloading the camera dolly and other heavy equipment... a real work-over.

Cable, as anyone knows who has ever handled it, weighs considerable, and so cable booms were designed and constructed between the forward wheel base and the rear wheel base, so that the bottom of the booms is only 18" off the ground. This cuts the energy necessary for lifting way down and greatly facilitates handling 1000 feet of 4/0 cable in 100 foot lengths, plus plugging booms and 500 foot "3-wires" by reducing the distance from the ground to storage area and vice versa.

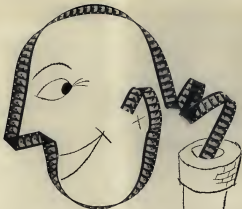
An auxiliary power plant, the Onan 115V, 600-Watt portable generator unit, was added to supply power to run the Mitchell "16" camera when necessary, illumination for the interior of the truck, and power to run drill motors or soldering irons, etc., for repair jobs. This portable generator plant also supplies power to the refrigerator unit and to the two-way radio which is used for communication to the light tower, the places on the field and for emergency aides.

There is a collapsible steel safety railing on the roof which protects the cam-

(Continued on Page 726)



TYPICAL OF location enclosures by Douglas Aircraft Company's Film Unit is this interior of one of company's assembly plants. Production truck enabled film makers to transport all necessary equipment in location in one trip and set it up for use in a minimum of time.



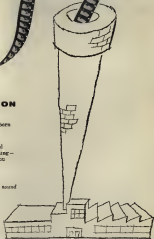
FOR A HAPPY PRESENTATION

The joy of accomplishment is a universal happiness. Especially in the case of a film which is your creation, born out of hard work and careful planning.

Because Precision's staff of specialists adds its own creative efforts to yours by the use of specially designed equipment, and by careful handling and intelligent timing—you might say we are fellow creators, working with you to bring out all you've put into the original...Yes, and maybe more!

So, when you turn those 16mm dreams into realities, be sure to call upon Precision for the accurate, sound and exact processing your film deserves.

Remember: Precision is the pace-setter in processing of all film. No mistaking of originals—none to speak color correction, optical track printing, all are the very best...35mm service, too!



you'll see



and hear

PRECISION

FILM LABORATORIES, INC.
21 West 46th Street, New York 36, New York

A DIVISION OF J. & M. HARRIS, INC.

In everything, there is one best . . . in film processing, it's Precision



FILMAGNETIC twin-head camera unit installed in Auricon camera. Finger points to ground-loop magnetic record track film, which receives both optical picture and synchronized sound track at same time.



WEIGHING but 7 pounds, the portable Filmagmatic Model MA-10 amplifier is easily carried in its form cowhide leather case with shoulder strap. Self-contained batteries operate amplifier for continuous period of 30 hours.

Magnetic Recording For Auricon Cameras

Now optional feature for new or
existing Auricon S. O. F. cameras.

IT WAS INEVITABLE that sooner or later all the advantages of magnetic recording would be incorporated into single-system motion picture cameras, replacing optical recording which has been the standard until now. Recently there was announced in *American Cinematographer* a camera of European make which featured a coupled magnetic film recorder. And now, Berrak-Bach, Inc., makers of the famous line of Auricon motion picture sound cameras, has announced the availability of magnetic recording as an optional feature for factory installation on all new or existing Auricon sound-on-film cameras.

After being installed at the factory in any Auricon camera, the unit, which is trade-named "Filmagmatic," can then be temporarily removed without the use of tools, thus providing a choice of high-fidelity optical or magnetic sound tracks.

Auricon Filmagmatic produces lip-synchronized "talking pictures" and music of quality on 16mm black-and-white or color film pre-scripted for magnetic sound before it is exposed to light.

The high-fidelity sound reproduction possible with Filmagmatic should be sweet music to the ears of the professional



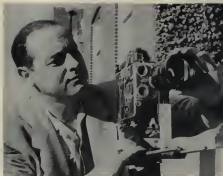
AURICON FILMAGNETIC twin-head sound recording-reproducing unit weighs but 4 ounces, will record high-fidelity speech or music. Once installed in an Auricon camera, it may be quickly removed to permit use of optical S.O.F. recorder.

film producer, who now for the first time has his choice of single-system magnetic or optical sound track with his picture—on the same film at the same time.

The complete Filmagmatic outfit consists of a highly functional magnetic sound-on-film camera recording unit weighing only 4 ounces and a compact 12-volt amplifier neatly fitted into a handsome cowhide-leather carrying case, as may be seen in photos above.

Perhaps Filmagmatic's greatest attraction for the pro-

(Continued on Page 722)



THE FILMORAMA anamorphic lens for 16mm cameras produces a picture with an aspect ratio of 1.6-2.48—greater than Cinemascope. Here Tullio Pellegrini adjusts focus of the Filmorama mounted before his Bell & Howell.

Filming With Filmorama

An amateur movie maker's first experience with the Bell & Howell "Filmorama" wide-screen lens for 16-millimeter cameras.

By CLIFFORD HARRINGTON

THOUSANDS OF amateur photographers have made movies of San Francisco over the years but few, if any, have filmed it as did Tullio Pellegrini. His version, "San Francisco," was shot in the Bell & Howell Filmorama 16mm wide-screen process.

An indication of this San Franciscan's success with his first effort in the new 16mm wide-screen format was the enthusiasm with which his picture was received by nearly 500 critical amateur filmares at the recent "Filming for Fun Fiesta" held recently in San Francisco.

Production of the 16mm color picture with magnetic sound-on-film presented more of a challenge than most amateur movie makers have to face. Pellegrini had to learn to plan his shots with the wider dimension of the auxiliary wide-screen lens always in mind. In addition, he had to choose subjects which would be suitable for wide-screen treatment. In many instances careful selection of camera angles turned otherwise commonplace scenes into dramatic wide-screen material.

The film is a picture tour which any

visitor to the city might make. After a brief glimpse of several civic buildings, we see such landmarks as Coit tower, Fisherman's Wharf, nearby Alcatraz prison and Treasure Island.

Pellegrini introduces a bit of history with a still photograph of the Panama-Pacific Exposition held in 1915. A lap-dissolve to a long shot of the same area today shows the old Palace of Fine Arts surrounded by row after row of houses and apartment buildings. Also included are wide-screen studies of such well-known places as the Cliff House, Playland, Golden Gate Park, Fisherman's Park and Chinatown.

Pellegrini takes his viewers for a ride on a cable car, and on a scenic trip by auto down a street which has been described as the most crooked thoroughfare in the world. Within the length and breadth of an average city block the pavement makes eight hairpin turns down a steep hill. The picture concludes with shots of the Golden Gate bridge at sunset, and night shots of world-famed Market Street aglow with lights.

Through the skillful use of the Filmorama lens, plus extensive planning and careful editing, Pellegrini has crammed a smooth flowing, finely paced picture. He first prepared his script so that his continuity would be worked out before he started. Then he spent two months shooting the film.

The picture is tightly knit. Pellegrini used many lap-dissolves and bridging shots taken from his moving automobile to tie the scenes together. It is interesting to note that all his special effects were made in the camera. He kept static shots, such as those of the civic buildings, at a minimum; these seldom last more than three and one-half seconds on the screen.

The picture is kept moving smoothly by tying several scenes together with transitional devices. For example, in a sequence of quick glimpses of signs at Fisherman's Wharf the last shot is of a sign shaped like a fish. He quickly follows this with a shot of a real fish on the counter of a sidewalk stand.

To shoot scenes from his moving car while driving about, he constructed a special basket for his camera. The bracket attaches to the molding around the windshield and is constructed from scrap wood and strips of metal, as may be seen in the accompanying photograph.

Of all the sequences, perhaps the most difficult to photograph from the standpoint of wide-screen was that of Chinatown. Few shots that the average traveler would make are suitable for the new



MUSIC AND sound effects were recorded on a master track of 16mm striped film, prepared so that it synchronized with the picture. For this, Pellegrini coupled two sound projectors together, using a



inside cable, as shown above. Picture at right shows the interlocking cable in closer detail. Previously, all sound for the film had been recorded on a portable, battery-driven recorder.

format he found, Pellegrini mounted the camera on its bracket within his car and filmed the long establishing shot of narrow Grant Avenue as he drove along the street. By shooting from the middle of the street he took advantage of its maximum width.

Then he concentrated on closeups of oriental architecture and sculpture. Often he would tilt the camera to include two or more objects in an interesting composition. One such shot contrasted the oriental and occidental worlds by showing simultaneously the cross on a Chinese Catholic Church and the ornate roof of an oriental building.

For one medium shot of a street scene which he believed he ought to have, Pellegrini was perplexed. The area that he wanted to photograph was too narrow for the wide-screen lens. He noticed, however, that the shot he wanted was reflected in a store window. By moving his camera and he included this reflection, he not only got the necessary width, but also captured an unusual effect.

San Francisco's zoo was an ideal subject for wide-screen interpretation. Most animals, Pellegrini observed, are generally longer than they are tall and thus tend to fit the dimensions of the wide-screen picture.

Pellegrini coupled a telephoto lens with his wide-screen lens to get unusual full screen closeups of the animals. One shot that is especially striking is of a tiger pacing back and forth at the edge of his grotto.

Filming San Francisco's venerable cable cars is an almost mandatory task for every person who carries a camera around the city. But few have succeeded in obtaining such startling results as

Pellegrini did with the Filmarama wide-screen lens.

He made shots from the streets and from inside one of the cable cars. These brief shots were edited so that they pick up in tempo. Finally, he cut in shots he had taken from his car. The sequence gives viewers the impression that they are at the front of a cable car as it rattles over San Francisco's picturesque hills.

Most dramatic of all the sequences is the ride down the crooked street. Pellegrini first shows viewers a long shot of the street to establish the locale of the action. An automobile is shown negotiating the dangerous curves. Then we are taken inside his car for the hair-raising

ride down the hill. The sound of screeching tires enhances the pictorial effect.

To add to the thrilling aspects of the ride, he shot this sequence at fourteen frames per second. When the sequence is projected at the normal twenty-four frames per second, the speed of the car is nearly doubled.

Pellegrini learned much from his initial use of the Filmarama lens. Panning must be done more slowly, he found. The widening of the picture amplifies any camera movement. While panning, the object being followed must not be too close to the camera or a jerky motion will result.

In his initial experiments with the
(Continued on Page 722)

MANY OF THE SHOTS made by Pellegrini for his production, "San Francisco," were shot from his car while driving. Camera, fitted with the Bell & Howell Filmarama wide-screen lens, was mounted in the car on the special bracket shown here.



The Drama Of Color

The value of color in the motion picture, as in painting, is two-fold. It functions both decoratively and expressively.

By NADINE PIZZO

COLOR AS AN INGREDIENT IN cinematography is a vast and complex subject which can be discussed from many angles, both technical and creative. Here I shall analyze the artistic of color and its uses from the dramatic point of view, both because the average amateur is un-instructed and inexperienced in the usage of color, and because the dramatic handling of color represents one of the highly creative facets of what is potentially one of the most expressive of all art forms.

At this point it might be well to ask "What is color?" It is not, as so many amateurs think, mere superficial brilliance or prettiness, something that registers with maximum brightness upon a strip of Kodachrome. Color is emotion! By means of our sense of hearing we are capable of responding in infinitely varied emotional degrees to sound or music. In the same manner, we are enabled to experience the full range of emotion through our capacity to see color. Colors, individually, have emotional connotations, both general and specific. The sensuous scope of color, when used in color relationships, is multiplied a thousand-fold. Compare the basic colors



NADINE PIZZO'S most recent achievement: "The Fall of the House of Usher," in 16mm Kodachrome.

with the notes in the musical scale. Our vast and varied musical literature is proof of the expressive potential of these few fundamental sounds. It is no exaggeration to assert that color provides us with a similar potential for creative expression.

The value of color in the motion picture, as in painting, is twofold. It func-

tions both decoratively and expressively. While color in its decorative sense provides superficial interest and eye-appeal, it is only in its expressive aspect that it becomes a significant instrument of interpretation. Color as mere surface decoration is definitely subsidiary to color as an expressive ingredient. Only when it is understood and unified in this deeper sense does color become one of the fundamental elements in the cinematographer's art. The ultimate purpose of the motion picture is to establish a direct and sustained communication with the audience. Color, because of its emotional persuasiveness, is one of the most powerful means for achieving this aim.

My own particular background for understanding the color demands of cinematography includes both easel painting and designing for little theater. The motion picture is akin to both of these art forms. As a pictorial medium it must observe many of the laws of painting; as an essentially theatrical expression it has much in common with the stage. The dramatic scope of color in the motion picture is quite similar to its use in the theater. As upon the stage or on the surface of a canvas, color in the motion picture is derived from two sources: the actual colors of the subjects and the quality of the light that is thrown upon them. Any given hue will have one effect if fully lighted, another when dramatized by the type of illumination referred to in painting codes as "chiaroscuro." This, literally translated, means light/dark, and is eloquently demonstrated in the paintings of Rembrandt. Still further variations may be achieved by the use of colored gels over the lights. We therefore have the two elements that give us our final color result: the basic color, which we arrange in expressive relationships; and the illumination, which is the tool we manipulate to produce our ultimate color magic.

The primary considerations in planning the color scheme for any movie are the subject and the predominant

(Continued on Page 79)

IN SETTINGS, whether they be outdoor locations or indoor sets, appropriateness must always be the final criterion. In a landscape setting a place is selected that is suitable for the action involved and having the proper color elements to support the mood of the sequence, as in this dramatic scene from 20th Century-Fox's "The Tall Man."



SEEING IS BELIEVING!



FIRST OPTICAL INSTRUMENT

OTHER THAN SPECTACLE LENS WAS THE CAMERA OSCURA, PERFECTED BY PERSIAN SCIENTIST Kamal al-din ABOUT 1320 A.D. CONSTRUCTED LIKE A PIN-HOLE CAMERA, THIS DEVICE REPRODUCES, IN MINIATURE AND IN COLOR, SCENES OUTSIDE THE APERTURE.

A MODERN OPTICAL ACHIEVEMENT—NEW WIDE SCREEN SYSTEMS ARE THRILLING AUDIENCES WITH SUCH OUTSTANDING FILM SPECTACLES AS OKLAHOMA, BRILLIANTLY CAST AND PRODUCED IN THE TODD-AO PROCESS.



"NATIONAL" CARBONS, TOO,

KEEP PACE WITH OTHER STUDIO DEVELOPMENTS. NATIONAL CARBONS' NEW "YELLOW LIGHT" CARBONS PROVIDE TRICKY LIGHTING EFFECTS ON SAMUEL GOLDWYN'S GUYS AND DOLLS SET SHOWN HERE. ONLY NEGLECTIBLE FILTERING IS REQUIRED TO MATCH COLOR FILM EMULSIONS.

THE "NATIONAL" CARBON ARC... NOTHING BRIGHTER UNDER THE SUN

The term "National" is a registered trade mark of Union Carbide and Carbon Corporation

NATIONAL CARBON COMPANY

A Division of Union Carbide and Carbon Corporation, 30 East 42nd Street, New York 17, New York
Sole Office: Atlanta, Chicago, Dallas, Kansas City, Los Angeles, New York, Philadelphia, San Francisco
IN CANADA: Union Carbide Canada Limited, Toronto



LAB-TV

Professional
16MM BLACK & WHITE
REVERSAL
PROCESSING

Processing on
hourly schedule for
leading TV Stations and
Producers

FASTAX SPECIALISTS

White Star Camera
247 W. 46th St.
New York 36, N. Y.



It's easy with the
MERCER FILM PATCH
Descriptive Chart & Price List
Mail us Request
R. C. MERCER & COMPANY
4341 Huxford Ave., Hollywood 28, Calif.
©Copyright 1962

YOU WON'T MISS AN ISSUE
of American Cinematographer if you receive
your subscription promptly when orders are
received. The timely information you receive the
month—\$7.00 U.S. and Canada; foreign \$8.00

FILMING WITH FILMORAMA

(Continued from Page 709)

Filmorama lens, prior to starting his picture, Pellegrini discovered that he could successfully use a Zoomar lens with it for some very dramatic pictorial effects. Otherwise, he used 1, 2, 3 and 6 inch lenses interchangeably with the Filmorama lens mounted before his H-16 Bolex.

While using the Filmorama lens, no light must be allowed to fall between the primary lens and the Filmorama, otherwise reflections of light will appear in the finished film. Pellegrini noticed, however, that he could point the Filmorama lens almost directly into the sun and no lens flare would result.

According to Pellegrini, when focusing the lens for wide-screen photography the primary or camera lens should be adjusted first on a ground glass viewer. Then the Filmorama lens should be moved into position and focused. If this procedure is not followed a false focus is obtained and the dispersion of light rays distorts the colors.

Pellegrini used a rackover attachment while focusing his primary lens. The camera was moved into its normal position and the Filmorama lens moved back against the primary lens for shooting.

The film was exposed at one-half stop over normal exposure to compensate for the loss of light induced by the auxiliary lens. This overexposure also overcame the problem of additional loss of light in projection, he said.

Pellegrini is enthusiastic about 16mm wide-screen photography. "It gives viewers an intimate picture of things which a regular lens alone cannot do," he said. "The wide-angle lens, for example, gives the effect of moving the viewer away from a scene. Also, there is a rapid diminishing of perspective.

"On the other hand, a telephoto lens brings the viewer close to a scene, but provides a limited area of coverage. With the Filmorama lens a photographer can use his regular one-inch lens and get the advantage of proper perspective and wide coverage."

The film's sound track was entirely post-recorded. "The actual street noise sound was first recorded with a portable, battery-driven tape recorder to match all the scenes as edited," Pellegrini said, "then a master track matched to the picture was re-recorded from the tape on a clean, striped roll of film—then from this film onto the 20 minute sound-striped picture film. The film was divided into four parts; one contained the four different sequences with the actual sound spliced one after the other, as with the master sound track, and included Plyford, the ride on the miniature

train, the cable car sequence, and the auto ride down the twisting hillside street with tires screeching at every turn.

"Later, these scenes were re-spliced into their respective places in the film with a loss of but one second of sound after each splice. As I was making the final recording, I made sure that no sound was recorded on the first 26 frames of each sequence. In other words, I delayed raising the volume until the first scene was on the head of the recorder unit.

"I consider the sound of the screeching tires the biggest accomplishment of the picture. An assistant held a microphone outside the car window to capture the continuous squeal of the tires as I drove down the curved street. This sequence was photographed at 14 f.p.s. for projection at 24 f.p.s. The sound, of course was recorded without any alteration of tape speed. With some discrepancy between the tape and film speeds posing a problem, I solved this by making a timed loop of the sound tape and recording it eight times on the master track. In the final recording, the sound for each turn of the car on the street was varied in tone and volume by means of the recorder and playback controls."

Following the photography of his first picture with Filmorama, Pellegrini has no illusions about making wide-screen 16mm pictures. "Amateurs using an anamorphic lens such as Filmorama for the first time," he says, "must face new concepts in cinematography and be prepared to film with greater care, if desirable results are to be achieved. Filming 'San Francisco' taught me a lot about the very things which Hollywood cameramen have had to face when shooting CinemaScope for the first time. But it was a most satisfying adventure."

MAGNETIC RECORDING FOR AURICON CAMERAS

(Continued from Page 717)

flexible) 16mm film producer is that it drastically reduces the weight and complexity of equipment needed while shooting a sound picture. It eliminates the need for a clap-stick sync-mark at the start of each scene—being single-system and therefore already synchronized—yet Filmagnetic provides flexibility of editing, because the magnetic sound-track allows high-fidelity re-recording of single-system into double-system for easy editing of only those scenes which are to be used in the final picture. Already existing 16mm record-reproduce magnetic equipment can be used for this purpose, feeding the Filmagnetic signal from one to the other 16mm magnetic

Film Editing Made Easy
with NEW
**professional
film viewer**
for 16mm film

Every film editor will appreciate a viewer that enables him to view his film from left to right—on a large, brilliantly illuminated screen.

The PROFESSIONAL FILM VIEWER makes film editing a breeze. Easy threading, portable, will not scratch film. Put this viewer between your rewinders and speed up your editing. Size of Viewing Screen 8" x 4".



Price—\$350
Counter additional \$100

FRANK C. JENSEN
CRIMAER EQUIPMENT CO.

DEPT. A-12-6 5400 BROADWAY, NEW YORK CITY

recorder, or from a magnetic to an optical 16mm sound-on-film recorder such as the Auricon RT-30 or RM-30.

In the production of 16mm motion pictures, the Auricon Filmagnetic provides all the well-known advantages of magnetic recording, with instant earphone monitoring of the actual "just recorded" Filmagnetic sound track inside the Auricon camera. Only 1/50th of a second delay occurs between the sound being picked up by the microphone and the same sound being reproduced from the Filmagnetic sound-track through the monitoring headphones. This means that with Filmagnetic you can be sure that the sound you hear in the monitor earphones is already recorded on the Filmagnetic sound-track inside the Auricon Camera. A selector switch on the Filmagnetic Amplifier Model MA-10, also allows monitoring directly from the microphone during rehearsals when the camera is not running and there is no Filmagnetic sound-track to "listen-in" on.

Filmagnetic eliminates the need for exacting and critical sound-track gain and density control during film lab development. Consequently, film processing can be adjusted for best original picture results without repeat to the magnetic sound-track, because the sound-track is not affected by the picture processing procedures. (Continued on Next Page)

Model 35-16C
SENSITESTER

★ IMMEDIATE DELIVERY
to the lab owners interested in—

**QUALITY
EFFICIENCY
ECONOMY**

- DUAL MACHINE
1—Sensitometer
2—Scene Tester
- HIGHLY ACCURATE
Electronics linear unaffected
by chemical changes.
- NEW TYPE LOGARITHM
Cold Light Reproducible Unit

NEW LOW PRICE

Combination 35mm-16mm

ART REEVES MOTION PICTURE EQUIP.

7512 Santa Monica Blvd.

Hollywood 44

California



For Greater Profits

IN YOUR FILM PRODUCTIONS

Use CINEKAD Motion Picture and TV Studio Equipment.

Some of the many new CINEKAD products are:

- Wide Range—2 different models
- Deluxe—7 different models
- Triad Triangle with clamps
- Triad Triangle with clamps and wheels
- Triad Ball Joint for Triad Triad
- Sync Motor Drive for 16/35mm projectors
- Sync Motor Drive for 16/35mm cameras
- Ring, Hi Hat and Lens Extension Tubes for the Arriflex camera
- Shoulder brace for all 16/35mm head held cameras
- Ball top tripod clamp
- TV Mount Triad with hand-operated hydraulic elevator

Write for New Illustrated Catalog and Price List.

CINEKAD

ENGINEERING COMPANY

One West 42nd St., New York 36, N.Y.
Phone 7-1511

DESIGNERS AND MANUFACTURERS OF
MOTION PICTURE—TV STUDIO EQUIPMENT

Automatic Daylight Processing



DEVELOPING TANK

- Processes up to 10 ft. film—Kodak Super 8
- Motor-Driven—Variable
- Motor-Driven—Variable
- Triad Triad Triad
- Triad Triad Triad
- Triad Triad Triad

FILM RATER

- Motor-Driven—Variable
- Motor-Driven—Variable
- Motor-Driven—Variable
- Motor-Driven—Variable
- Motor-Driven—Variable
- Motor-Driven—Variable

Guaranteed Write for Free Literature, Dept. 35
Micro Record Corp. 100 West 42nd St., New York 36, N.Y.

Ready-Eddy

U.S. Registered Trademark
FIFTH YEAR—UNIVERSITY ACCREDITED
BY THOUSANDS—EASILY READABLE

100% Ready-Eddy Film
• Available in 16mm
• Available in 35mm
• 16mm and 35mm
• 16mm and 35mm
• 16mm and 35mm
• 16mm and 35mm

\$2.00 Per Foot

(Inquire to U.S.A.)
ASK FOR REPLY OF OFFICE
IN AMERICAN CINEKAD OFFICE.
Write or ask your dealer
READY-EDDY, Lucky Bank, Conn.



Either "camera-original" film with lip-synchronized Filmagnetic sound, or a Filmagnetic print can be shown on any 16mm magnetic sound projector such as the Ampex, B&H, RCA and others. Prints with optical sound-tracks re-recorded from the Filmagnetic "camera-original" sound-track can also be shown on any 16mm optical sound projector. Filmagnetic "camera-original" sound-track can also be re-recorded without loss of high-fidelity quality onto 35mm optical or magnetic sound-on-film, together with 35mm picture enlarged on an optical printer from 16mm.

The Filmagnetic twin-head unit for single-system magnetic recording is the first of a series of magnetic recording products which will be made available to producers of 16mm sound-on-film motion pictures by Bernst-Bach, Inc. Unique editing and recording equipment, taking advantage of the flexibility of magnetic recording, will be announced by the company in the near future.

For twenty-five years this company has been an outstanding leader in the development of new and advanced products in the 16mm sound-on-film field, and the new Auricon "Filmagnetic" equipment described here is the result of years of design and engineering work following the advent of magnetic recording. Bernst-Bach's point-of-view idea may revolutionize the 16mm film industry, and will certainly have far-reaching significance in the field of TV color newsreels and commercial films, as well as industrial motion pictures.

EFFECT LIGHTING

(Continued from Page 776)

Lights used for actual illumination outside camera range must be so placed as to give both the quality and direction of light that would normally be given off by the prop lamp unit shown in the scene. Also, such spotlights should be located in such a way that the closer the players approach the prop lamp, the more brightly illuminated they will appear. An excellent example of such lighting appears in the accompanying photo from the production, "Not As A Stranger," featuring Alvin De Hartland and Robert M. Schuman, photographed by Frank Pinner, A.S.C.

Within the realm of effect lighting we must also consider a style of illumination known as "area lighting." As the name implies, this is the type of lighting setup in which only selected areas or parts of the set are illuminated—the rest of the set being allowed to fall off into darkness. This style of lighting, of course, is more widely used in the photography than in commercial films, but

it often has logical application in sequences that demand unusual mood or harsh realism. The important thing to remember is that the light falling on the illuminated areas should appear logically coming from some practical source. Examples are moonlight coming through a window, lamps apparently situated in an adjoining room and casting their light through a door or hallway, etc.

Projected shadows create effect in lighting which can be a great bonus to the industrial cinematographer, since they not only add greater realism to the scene, but can sometimes be used to simulate the atmosphere of large or unusual settings. For example, suppose the script calls for a typical office setting. The set is dressed with appropriate furniture and props authentic in every detail, but somehow the illusion of a real office is still lacking. To give the scene the needed touch of authenticity, the cinematographer can set up a large venetian blind just out of camera range and project the beams of a junior or senior spotlight through the slats, casting a shadow on the wall. Properly done, the result is that of sunlight coming through a distant window protected by a half closed venetian blind. Often a cleverly executed shadow pattern can create the illusion of a whole set. For example, a church can be suggested by projecting the pattern of a Gothic window (cut out of cardboard) onto a bare wall in the background. Smaller illusions can be worked out by employing cutouts of window frames, prison bars, grillwork, etc. Today's industrial cinematographers are finding more and more need for such lighting applications.

Sunlight and moonlight effects require special setups which are considered routine in the major studios, but which may at first seem tricky to the industrial cinematographer. Sunlight has a relatively harsh quality when compared to interior lighting, so it is best simulated by directing the beams of an arc lamp through a window or doorway of the set. Where the equipment is not available, a senior or a junior spotlight can often be used with quite satisfactory results. If the production is being photographed in color, use of a straw-colored filter over the light source is recommended to give the artificial light the warm tone of sunlight.

The same lighting units recommended above for sunlight effects are also practical for producing moonlight effects, except that they are generally toned down by means of diffusers, and the general key of the lighting is much lower. Where a moonlight scene is being shot in color, a very light blue gelatin filter should be placed before the source light.

Candlelight, lamplight and firelight effects are frequently called for in many

SOUND PRINTING HEAD

Converts Model J' or "D" into a double head printer without machining



Print both sound and picture from separate negatives in one operation with this conversion.

Send for Catalog of Motion Picture Printing Equipment and Accessories



MOTION PICTURE PRINTING EQUIPMENT CO.
Mfg. of Optical and Continuous Printers and Accessories
1135 NORTH LAWDALE AVENUE • SKOKIE, ILLINOIS

Write today for prices and complete literature

PRECISION SOUND PRINTERS

- Improved to give highest quality sound track reproduction.
- Improved light source permitting faster printing speeds.

The following three models are available

- For printing 16mm negative to 16mm positive.
- For printing 35mm negative to 35mm positive.
- For printing 16mm negative to 32mm positive.

CONTACT SOUND TRACK PRINTER BENCH MODEL

Completely self-contained unit



- Printing speeds up to 120 feet per minute.
- Replaces master film take-up.

of today's industrial films, and they, too, require special setups. The chief rule to follow in creating these lighting effects is simulate the source. In other words, place the set lighting units so that their light will fall on your subject in the same way that it would if actually coming from the source of light being simulated. Here your best guide is to study the genuine article—sunlight, candlelight, moonlight, etc., and then attempt to duplicate it by artificial means.

Candlelight is a soft, even glow that emanates from a central source. In order to duplicate this glow in lighting several people seated around a table, for example, use several Baby Koplites or Dinky Lites (one for each person and one directly over the candle) so that each person will be evenly lighted—with that light appearing to come from the candle itself. Slight diffusion over the light units will enhance the realism of the effect.

Lamp-light effects are accomplished in a similar way, except that the key light is usually somewhat higher and the shadows more pronounced—accomplished with the use of stronger lighting units and less diffusion. Whenever candlelight or lamp-light scenes are shot in color, straw-colored gelatins should be used in front of the lighting units.

The use of colored light in industrial color film production was once a high-

COMPLETE MOTION PICTURE EQUIPMENT

RENTALS

FROM ONE SOURCE

CAMERAS

MITCHELL

16mm
35mm Standard
35mm Hi-Speed
35mm HC • 35mm BAC

BELL & HOWELL

Standard • Super • Vista

ARRIFLEX

16mm • 35mm

WALL

35mm Super system

ECLAIR CAMERETTE

35mm • 16/35mm

Goedicke

AURICON

all models single system
Cine Kodak Special
Mauzer • Bolex
Blings • Tripods

DOLLIES

Peerless Powerwin
Chromobile (CRAB)
Reiflex • Mustang
3 Wheel Portables

LIGHTING

Mole Richardson
Bardwell Multilite
Cinemas
Century
Cobin
Spider Beams
Bell Switches
Strong ARC Trouser
10 Amps 110V AC 3000W-
3000W-750W
CROD Cine Lite
(Interview, Soft)
Order Clip Lines
Barn Doors
Diffusers
Dimmers
Reflectors

EDITING

Merrill • Beaudoin
Tektite • Bellows
Viewers (VICO)

GRIP EQUIPMENT

Postals • Ladders
2 Steps • Apple Boxes
Stamps • Rugs
Order Sheets

Complete grip equipment

SOUND EQUIPMENT

Magneto-cinematic film
Reems Maglorator
Mole Richardson Beams and
Powerhouses

Portable Mite Beams
Portable Power Supplies for
spotlights and recorders

WE SHIP VIA AIR, RAIL OR TRUCK

JOHN S. ENCKER
CAMERA EQUIPMENT

Dept. A-12-19 • 1600 Broadway • New York City



CINEKAO JUNIOR TRIPOD DOLLY

This collapsible three wheel tripod dolly is especially designed to meet the demand for convenient mobility of cameras on location or in the studio.

Dolly can be used with any professional or amateur tripod.

The tripod is fastened firmly to the dolly by a clamp of such big size.

The special individual outer locking system makes it possible to lock either two or three wheels in a parallel position, enabling the dolly to track in a straight line for rolling, dolly shots.

Dolly folds quickly into a single compact, easy-to-carry unit, 35 inches in length, weighing 14 lbs.

Write for Prices and Literature

CINEKAO

ENGINEERING COMPANY

305 WEST 52ND ST., NEW YORK 19, N.Y.
Phone 7-3311

DESIGNERS AND MANUFACTURERS OF
MOVIE FILMS AND TV EQUIPMENT

MOVIOLA

FILM EDITING
EQUIPMENT
16MM - 35MM

- PICTURE
SOUND
Photo and
Acoustic
- SYNCHRO-
NIZED
- REVERSIBLE

One of the
most serious 35
Millimeter film
editors and
reversers.

Write for
Catalogue

MOVIOLA MANUFACTURING CO.

1402 Garden St. • Hollywood 28, Calif.



Reversal PROCESSING

Reversal specialists for over a decade.
Our long experience makes superior quality.
Especially carefully controlled makers long
months' material. 16mm. 35mm. 8mm.
Kodachrome. Ektachrome. Ektachrome. Ektachrome.
Kodachrome. Ektachrome. Ektachrome. Ektachrome.

REVERSAL PROCESSING
KODACHROME EKTACHROME
KODACHROME EKTACHROME
KODACHROME EKTACHROME
KODACHROME EKTACHROME

NATIONAL CINE LAB
Box 9975 Washington 11, D.C.

by debatable subject. Purists maintained that it was illegitimate, and consciously arty device, but more and more industrial cinematographers are now accepting the view that colored light, properly used in a color production, has a definite place in some types of business and industrial films.

So many industrial and technical subjects lack color that it often becomes a struggle for the cinematographer to add visual interest to his compositions. Machinery is usually drab gray or black and industrial workshops or laboratories are traditionally painted in the dullest possible colors. Many cameramen, therefore, solve this problem by placing colored gelsatin in front of the set lighting units used to illuminate backgrounds. In such instances, it is not recommended that the key light be tinted (unless there is some specific reason for it), but the side-light, top-light and back-light suitably tinted will add much even to scenes which include people. In such instances, one should be careful not to permit colored light to dominate the flesh tones.

A single shaft of colored light falling across a background can often dramatize a scene that would be completely colorless otherwise. The photographic purists will ask, quite logically, "From what source is that colored light coming?" But the audience will rarely, if ever, ask such questions. It will be more conscious of the fact that the scene has a certain verve, plus the ability to hold its interest.

Gone are the days when the photographer of business and industrial films could get by with commonplace set illumination. Today, he must be able to give his productions lighting that not only makes the scene photographically desirable, but which adds to the impact of the screen presentation, holds interest of the audience, and thus contributes to selling the idea which the client wishes to get across.

AND NOW 55MM

(Continued from Page 357)

plane is more properly distributed.

Fortunately, and somewhat surprisingly, filming in 55mm CinemaScope did not, to any great extent, add to production operations. As I stated earlier, during the first few weeks of filming we would alternate with first the 35mm camera and then with the 55mm, using the same set-up for each where the angle of view was the same. We found that the 55mm carried definition better to the sides of the screen, and that there was less distortion. Our location work was a good test for this as most of the scenes were seascapes where the straight line of the horizon could have confounded us with objectionable curving effects.

The camera and blimp weighed about the same as the Technicoor camera and blimp. Thus we were able to use the same vibration, tripods and crane apparatus that have been evolved for Technicoor productions.

In the matter of lighting, for night interiors I used a 900 foot-candle key at 1/4.8, and the same spot with a light level of 3000 foot-candles for day interiors. I did not deem it necessary to use a higher lighting level, for at 1/4.8 all the depth desirable was obtained, plus a measure of the plastic effect of 3D. The exposures stated above produced a negative on the fully-exposed side. This was desirable in order to obtain necessary quality in the reduction prints made therefrom. As any type of optical prints seems to add contrast, I found that more fill light was required than for conventional (non-CinemaScope) prints.

In the future still newer cameras will probably be developed, but the optical problems will remain for the CinemaScope to take in stride. The greater brightness, lack of distortion and better definition that is inherent in the new 55mm CinemaScope will give an improved new "look" to our productions and therefore bring greater enjoyment to theater patrons everywhere.

STUDIO IN A TRUCK

(Continued from Page 754)

camera when working there, and is a decided advantage when photographing places landing and taking off along runways. Moreover, the rithings are so constructed as to take bumps which may be clamped to the handrails. The roof is additionally reinforced to support crew and camera and lights. The overall dimensions of the truck, (cab and van), are, height: 11'5"; width: 8'; length: 24' 8" and the total weight loaded is 22,900 lbs.

To aid in stabilizing the truck during actual shooting from the roof, two jacks are provided for use under each front corner of the van body. The lift gate is lowered to the ground and additional pressure is applied to relieve the overload on the springs at the rear.

The accompanying photographs also illustrate the tremendous amount of diversified equipment which is contained in this single unit, such as a tape recorder, a transmuting and receiving radio, collapsible chairs, two benches which can be slung from the overhead, complete shadow control for the lamps ranging from dials, flags, cutters, and goose-necks to a battery, a banana, and last, but not least, a few tomatoes!

Power to operate lights for photography is supplied by a 600-ampere Mole-

PRECISION SOUND READERS

Look for
this
trademark



It is your guarantee
of the finest in sound
editing instruments.

FEATURES: Simple threading . . . polished stabilizer drum with needle bearings, with a surface which cannot damage film . . . film rollers machined to run true with SMPT standards, and equipped with silent bearings . . . precision ground shafts . . . dimensioned to 1/16 inch.

AMPLIFIER: 117 volt—60 cycle—AC . . . power output—4 watts . . . heavy duty Alpha V speaker . . . safety fused . . . prefused socket . . . pilot light . . . 6 ft. heavy duty cord.

All Prices F. O. B. Factory, Rosdlyn, New York

Write for Literature

PRECISION LABORATORIES

1130 UTICA AVENUE • ROSDLYN 3, NEW YORK



OPTICAL-MAGNETIC

Model 800—16mm, 35mm & 1/2 inch
NET PRICE \$399.00



OPTICAL

Model 400—16mm and 35mm
NET PRICE \$149.00

MAGNETIC
Model 700—16mm, 17.5mm, 35mm
and 1/2 inch
NET PRICE \$199.00



Richardson generator mounted on a separate truck which operates in conjunction with the main unit.

In order that the fullest possible use can be derived from this unique combination unit, both the truck and generator are enrolled in the plane protection emergency setup which, in turn, cooperates with the Civil Defense agencies in the area. In the event of a power failure, this portable rig is on standby status, and only requires a short time to set up anywhere and provide lights, and of course, has a fairly complete maintenance unit which is capable of handling a lot of emergency repair.

The van has more than proved its worth by hauling all the equipment necessary to obtain motion picture coverage, whether it is indoors in one of the many plazas located throughout the country from California to Oklahoma, or on location out in the desert at Holloman Air Force Base, New Mexico.

Perhaps this is the shape of things to come in the motion picture industry also: to provide everything in a single unit such as this truck for location shooting; compactly, efficiently, and with little or no baggage, because everything has its own place, as lieu of dumping the whole works into a huge truck and digging into it on arrival at location and finding one 10K stand missing, or no spiders because "Joe forgot 'em."

END

Charles Ross INC.

EVERYTHING FOR EASTERN PRODUCTION

LIGHTING -
GRIP EQUIPMENT
PROPS - GENERATORS
DOLLIES - MICROPHONE BOOMS

(Catalogue Upon Request)

323 WEST 52nd ST.



N.Y. 39, N.Y. CI 6-5870

Now! A 400ft. Magazine For Your BOLEX H-16

Complete
with
Synchronous
Motor
and Base
•
Includes
Illustrations
and
Case



Parade magazine 400 ft. run of Liberty Bells—the 200 ft. daylight loading reel may be used in the 400 ft. magazine. The 150 ft. reel can be used in the camera without removing its barrel magazine. Fully guaranteed. Cost \$700. Great a magazine—unloading made—available at half-price! 11 can write for complete information of our new Bolex dealer.

Ask about our Book-Order
and Camera Base



TOLSON ONE ENGINEERING
1209 Madison Ave. Toledo 6, Ohio



GED W. COLEMAN LABORATORY INC.
104 NORTH WALKER DRIVE-CHICAGO 4
TELEPHONE STATE EX-101

8 and 16mm
SERVICES

In the classified ad column, you'll find
BARRING GILSON

In
New and Used Equipment
of all kinds

A Good Place For You
to Sell, 1941

RATES ARE LOW—ONLY
10¢ per word and up

NEW VISTAVISION CAMERA

(Continued from Page 713)

camera for a period of five hours.

As with the studio model VistaVision camera, regular 35mm negative—black-and-white or color—is used. As with the studio camera, the film travels horizontally from right to left past the gate, as viewed from the rear. The "pull-across" movement, comparable to the pull-down movement in standard 35mm camera, is eight sprocket holes or two full frames. Aperture size is 1.4/11" by .991 inches.

The movement, pictured here, is of the Mitchell type and is made by Mitchell Camera Corp., registration pins are on either side of the film and engage the first sprocket holes of the film beyond the frame line, in the direction of the film "pull-across" mechanism. The camera is noted for the same steadiness of picture that is an inherent feature in the studio VistaVision camera.

As may be seen in the photo on page 713, access to the camera movement is had by opening the top door. Only one central sprocket wheel—a feature of most 16mm cine cameras—is employed for both feeding and taking up the film through the camera. A silent feature is the stripper-buckle switch assembly which operates on both the feed and takeup film reels simultaneously. The switch mechanism is so sensitive that it will function and automatically stop the camera motor when the end of the roll of film comes through—stopping the film before the end reaches the aperture plate and thus preventing any possible damage to the aperture plate. The buckle-trip reset switch is conveniently located on the back of the camera.

Paramount engineers incorporated into the design of this camera still another important feature, which permits quick inspection of the gearing, shutter or film movement in case trouble develops. By removing only three screws, the movement and its coupled drive motor can be lifted from the camera case intact. A compactly integrated unit, it can be switched on and operated on the workbench, the same as if it were in its case. Paramount claims complete removal and inspection of the camera mechanism and reassembling in the case can be accomplished in only 15 to 20 minutes.

Film magazines, which are readily detachable, weigh less than 4 pounds without film load, and approximately 6 pounds when fully loaded with 400 feet of negative. Cast magnesium is used in their construction, which is the same material used for the camera case. Take up is by belt from the film sprocket drive shaft. To prevent clogging of the operator from becoming fouled, the belt

pulley is protected by a cover glass. Other features of the magazines include free-running upper and lower flanges, which insure smooth film travel no matter at what angle the camera is turned.

Although the fixed type shutter, when fully open is technically rated at 1/62½" it has an effective opening of 1/70".

Lenses used with this camera are essentially the same as those used with the studio VistaVision camera and include 28, 35, 50, 85, and 152 millimeter focal lengths. In addition, but not carried as standard equipment are 40mm, 100mm and special 120mm lenses which the studio supplies for special assignments. As with all hand-held cameras, all lenses are focused manually.

The finder, which features manual adjustment for parallax, is located on top of the camera, same as with the studio camera. It is 2½ inches directly above the axis of the camera lens. There is a separate finder lens which matches the field of the various available taking lenses described above, with markers for each lens of essentially the same size.

The noise level of the camera is said to be very low and this has made the camera especially ideal for all types of outdoor assignments. This reduction of noise has been accomplished through the use of phenolic gears, by reducing film loop slap, and in the design of the case which has been curved to reduce resonance. Finally, there was eliminated the multiple stages of gearing in the mechanism that features the design of many other portable cameras.

The motor that is provided for normal 28-volt service is lightweight and governor controlled. It weighs just under two pounds and draws but 2.6 amperes at 4500 RPM when operating the camera at the normal 24 f.p.s. speed. Control of the f.p.s. speed is accomplished by controlling the voltage supply through a switch mounted on the motor, and the desired speed is determined by observing dial of the precision electric tachometer mounted on top of the camera. This is calibrated from 12 to 24 f.p.s. and is operated by a 7½ volt generator driven directly by the shutter shaft. Presently in the works is a series compound motor for this camera which is rated as 96-volts, and having the same torque as the present 28-volt motor. The new motor is designed to permit operation of the camera from conventional power sources.

The new VistaVision camera was put to practical use on the recent Alpa location for Paramount's "The Mountain," with Frank Pinner as director of photography. Handling the camera a great deal of the time on this location assignment was cinematographer Tili Gabbiani, who appears in the accompanying photo demonstrating it.

**A
\$12,000
Value

SPECIAL
\$5,750**



SAVE OVER ½
on this
**TEAGUE MOTION PICTURE
BACKGROUND PROJECTOR**

Ideal for TV or motion picture production. Controls of camera with Bell & Howell pilot pin movement, blimp, high intensity Tealite-Aclogas Arc high intensity lamphouse, control panel, screen adjusting screws, rectifier.

gordon enterprises

5542 N. Cahuenga Blvd.,
M. Hollywood, Calif.
Circle GORDENT

THE DRAMA OF COLOR

(Continued from Page 738)

mood of the picture. Into which general category will the material fall? Is it a comedy, a farce, a drama, or a tragedy? In what manner is the subject to be presented? Factual or fanciful, realistic or poetic? Will the mood we are striving to realize be gay or melancholy, brilliant or drab, light or heavy? And finally, what is the historical period of our piece, and in what locale is it set? Not until all these points are thoroughly involved in the mind of the producer can the color problem be considered. The color and illumination for a comedy will be entirely different than that for a tragedy. A factual point of view makes far less demands on the imagination of the colorist than a fanciful approach. A gay mood will require high keyed color, while a melancholy mood will necessitate the use of color in a low key. The historical period will greatly influence color choices, for each era has specific characteristics which should be understood and manipulated to give authenticity to a period piece. The geographical setting will likewise have its influence on color selections. The colors used in a New Eastern locale will have a more exotic "flavor" than those used, say, in England in the same historical period. We must key our color to the subject and the mood of our picture, and support the subject and intensify the mood with our color.

Once we have determined the general color mood appropriate to a given production, we are free to consider the details of the two categories within which we will be putting our color to use. The two factors with which we are now con-



**New Cantilever Model
R-15**

**Filmline
Combination
REVERSAL
PROCESSOR**

—a great value with unique features

Never before a 16mm negative-positive processor with such unique features. For instance, positively elongates film breakage. Film can be held manually while machine is running, without harm. Features exclusive overdrive film transport, permits daylight operation on all emulsions, with variable speeds up to 1,000 feet per hour. Tanks built of heavy-gauge Stainless Steel, with 1,200 feet magazine, feed-in elevator and filtered air supply to drybox. Many, many other features for the operator who wants to "get there first with the most and best quality film."

Write for further details and literature.
Other models available from \$1,129.00.



**FRANK J. GORDON
CAMERA EQUIPMENT CO.**

DEPT. A-12-22 1400 BROADWAY, NEW YORK CITY

cerned are settings and costumes. In both departments we must reconcile the general mood requirements of our picture with certain specific requirements of individual scenes and characters.

In settings, whether they be outdoor locations or indoor sets, appropriateness must always be our final criterion. In a landscape setting, you not only select a place that is suitable for the action in-

volved, but also one with the proper color elements to support the mood of your story and the emotional quality of the particular scene. Moreover, you wait for the type of weather that will best give your final color result. When filming indoors, the sets, whether selected or constructed, and the various properties that complete them must first be keyed to the overall mood, and then further

MILLER FLUID ACTION HEAD

— Now available in the U. S. —

"Make Ideal for ★ Geo-Special, Buick,
dash perfect ★ Buick, Avelon-16,
plus" ★ B&W, Geo-Velox, etc.
Complete control for SMOOTH Panning in both
vertical and horizontal movements

Money Back Guarantee
10-DAY FREE TRIAL
Terms: Priced in U.S. of previous
model in enclosed. C.O.D., Cash-
on-delivery, plus shipping and C.O.D.
Charge. **\$113.40**

New Improved Senior Model

U. D. PHOTO ENGINEERING
P. O. Box 20781, Los Angeles 21, California

The "MASTER" PORTABLE POWER SUPPLY \$169.50

Delivers 5100 AC and 4 Yelco DC
For All MasterBlaster Movie Cameras



STANDARD MODEL \$68.50

Filmtronics, Inc.

Box 3, 700 Washington St., New London, Conn.

refined to meet the requirements of the specific scene. The color quality of the same set can be altered by illumination to give various emotional effects. In addition to this major consideration, the sets must convey by means of color the period involved, the character of the specific interior and its function, and even the time of day. It is literally true that one picture is worth a thousand words. A setting that may cost an author many paragraphs to establish can be stamped indelibly upon the mind of the viewer in a few seconds of projected film. The untold hours that may have been involved to achieve the final result do not show, but the ultimate impression does. The visual impact of color is immediate and powerful, and can communicate in a flash any amount of information or emotional meaning that the producer may wish to put across.

With the costumes as with settings,

Video Film Laboratories

is now located at
**350 West 50th Street
New York 19, N. Y.**

TELEPHONE: JUdeon 6-7196



Complete 16mm laboratory service
for Producers using the
Reversal Process

Also 16mm Negative and Positive
developing.



WRITE FOR PRICE LIST

Established 1949

the color key of the over-all production takes precedence, though not quite to the same degree. When we enter the field of costuming we are immediately dealing with characters of widely divergent natures. The first general detail to consider is the historical period involved and, of course, the locale. As one easily can see, even a contemporary drama. If given a foreign locale, will pose costume problems. Even though the costume may be equipped with a good general knowledge of the history of dress, detailed research will be essential for the period under consideration. A thorough check on available reference material will reveal pertinent color information on the time and the place. You will soon discover whether the colors should be pure or pastel, muted or brilliant, varied or limited, harmonious or clashing. When you have these facts at your disposal you will strain them through the mood

requirements of your vehicle and adjust them to the personalities and the circumstances of your characters.

We are now free to meet the demands of specific characterization. To what actual level does a given character belong? What are his material circumstances? What are his mental and physical attributes? And, above all, what is his function in the drama? All these factors will determine the colors in which you dress him. The next point to consider is his dramatic development within his particular mood framework. Does he show his nature in relationship with other characters, and does he have a particular line of emotional progression throughout the story? If so, what? In which scenes is he dominant, and in which is he subordinate? Is he in harmony with his environment, represented by the settings, or in opposition to it? With what other character or characters do you wish to contrast him, and in what manner? The costume must translate all these factors into color—color in the individual costume, and color in the entire ensemble of costumes. As with the production in its entirety, so with specific costume; we must key the color to the character and dramatize the character with color.

Nothing would be more misleading than to reduce the dramatic essence of colors to just generalities. No given color is a fixed entity. Its nature is chameleon-like in that it alters its character each time it is brought into a new relationship. That, you may assert that cool colors tend to recede, as warm tend to advance. This, too, is relative. A blue that might recede in one color harmony could be electric in another. A red that would shock with vitality in the company of certain colors could become dull and lifeless under other circumstances. Let us consider for a moment two of the primary colors in the pigment color chart—red and blue, both in high fever with users of Kodachrome. What are their emotional connotations? This depends upon the value and hue that one chooses, with what other colors it is used, and how it is illuminated. Thus, blue can take on connotations ranging through peacefulness, purity, hostility, gloom, airy joyousness, brooding tragedy, etc. Red can be evocative of sympathy, festive or fraught with horror, vibrant or smoldering, mellow or harsh, triumphant or tragic, beautiful or ugly, and so on, ad infinitum. In this very diversity, which makes generalities and hard and fast rules impossible, lies the excitement of working with color. Each new assignment offers a fresh adventure. Through experimentation, taste, and dramatic sensibility this visual vocabulary can be manipulated to create whole new worlds of color imagery and dramatic expressiveness.

NEW Perfection In A 16mm Synchronous Magnetic Film Recorder

NEW!

NEW quick amplitude recording on Western Electric full Duet-type mechanism film, which results in a continuous "up to speed" line of three seconds without spacial hole change.

NEW completely enclosed up-and-down shield record head to minimize film pickup.

NEW 105 inch film and holders.

NEW padding mounted drive eliminates gear tooth impact in take-ups.

KINEVOX DIVISION

Redwood City, Calif.

115 So. Hollywood Way

Burbank, California

Phone: Varsity 8-0291

The ONLY Professional Film Recorder Complete in ONE Case, from Microphone to Film.

A DAY WITH A CAMERA

(Continued from Page 708)

knows you cannot make movies without a camera, but I had never gone much farther in my thinking about the matter than that.

What I saw in just one typical working day with a camera and its crew was a revelation—activity in lighting and composition; attention given to detail that was more meticulous than I have ever known; and teamwork that functioned on split-second timing and hair-line accuracy. And with it all, I saw, and was fortunate enough to be included in, an easy camaraderie among this team that I feel is the reason they work together in harmony the way they do.

The day began in Sol Halprin's camera department. By 8:00 o'clock the camera cart was loaded with camera and film and hauled over to stage 16, where shooting was to take place that day. Once on stage, assistant Lebovitz mounted the T.C.F. camera, mirror magazine and lens, on the junior crane. Once it was securely in place, the CinemaScope lens was mounted and checked. For the scenes scheduled to be shot the early part of the day, a 24-inch CinemaScope lens was selected. According to Milton Krasner, this lens is considered the "workhorse of CinemaScope."

Next, the finder was attached, and then the film magazine. Threading the film on the camera was the next step. Lebovitz checked the aperture plate—removing it from the camera—to make certain that it was absolutely clean. And then the "harney" was slipped over the film magazine. This is a heavily-padded slip-on cover that sits in a bump for the magazine. The camera itself is not blipped, and does not need one. This is because the T.C.F. camera mechanism is remarkably silent—an exclusive feature. It is said to be the only motion picture camera so constructed, and for that reason is one of the easiest and most convenient to use on the set or on location.

And while I'm dwelling on the remarkable features of this camera, I may as well mention another: the ability to "barrel" the magazine 90 degrees to the right so that the cameraman or operator can view the scene directly through the taking lens.

While the camera crew was readying the camera for action, director of photography Krasner was busy "roughing in" the lighting of the set. I noted that he lights from back to front in the

set and, like so many other fine cameramen, he lights in front of the camera. That is, he uses a viewing glass and his naked eye to gauge his lighting rather than employing the camera finder for this. I was told that the roughed-in lighting would be finished by the time that director Jean Negulesco arrived on the set. Then the players would be placed for the first shot, enabling Krasner to go on to the finer details of "fine lighting."

I was permitted to look through the finder at this point and could see the set coming alive as Krasner proceeded with the lighting. It was a huge set with a great many extras. As I looked up from the finder, Krasner explained the effects he was achieving through the use of pink, white, amber and yellow lights.

Director Negulesco arrived on the set at 9 o'clock. The first lineup was in progress. Krasner discussed the shot with him. At this point the problem is to find just the right angle and approach that will render the best pictorial effect and at the same time advance the picture's story line most effectively.

The basic angle was quickly decided and the camera moved in so that Kras-

(Continued on Page 731)

MATTES • INSERTS • FADES • DISSOLVES • WIPES • SUPERIMPOSURES

SPECIALIZED TITLES

OPTICAL EFFECTS
35mm or 16mm

RAY MERCER & CO.

BLACK and WHITE
or COLOR

ESTABLISHED 1926

PHONE OR WRITE FOR SPECIAL PHOTOGRAPHIC EFFECTS, OPTICAL CHART & INFORMATION
4241 NORMAL AVE., HOLLYWOOD 29, CALIF. • NORMENDY 3-9331

HOLLYWOOD STUDIO PRODUCTION

Feature and television film productions for which members of the American Society of Cinematographers were engaged as Directors of Photography during the past month

AMERICAN SOCIETY OF CINEMATOGRAPHERS

FOUNDED January 8, 1905, The American Society of Cinematographers is composed of the leading directors of moving picture in the Hollywood motion picture studios. Its membership also includes non-resident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

• ANTHONY MILLER, President
DR. HUGHES, First Vice-President
WILLIAM SCALL, Second Vice-President
ALBERT GALE, Third Vice-President
WALTER SPRING, Treasurer
CHARLES G. CLARKE, Secretary
ROBERT DE GRAZIE, Sergeant-At-Arms

BOARD OF GOVERNORS

JOSEPH BRON
GEORGE TOLLEY
BENJAMIN GIFFE
WALTER HUGHES
HAROLD LINTON
RAY ELLIOTT
LEON SHARKEY
PHILIP TANNER

ALIAS ARTISTS

- **ELLENORH FERNSTADT, "The Friendly Persimmons,"** (Eastman Color, VistaVision) with Gary Cooper, Dorothy McGuire, Marjorie Main, William Wyler, producer-director
- **WILFRED QUINN, "The First Wives,"** (CinemaScope) with Joel McCrea, Wallace Ford, Carl Benton Reid, Jeff Morrow, Judy McGuire, William Hopper, Scott Douglas, Byron Haskin, director
- **HENRY FORD, "He Died Laughing,"** with Frankie Laine, Lucy Marzette, Richard Long, Mike Edwards, director
- **SAMUEL LEVIN, "Come In To The Streets,"** with James Whitmore, John Conte, et al. Ben Segal, director
- **HARRY NEWMAN, "Swimming Eagles,"** (Barclay Diamond Print) with Tom Tryon, Jay Medina, Abby Moore, Charles Hall, director
- **WILFRED CLINT, "Maiden Sue,"** with Jean Seberg, Guy Mitchell, Shirley Van Dine, Edward Bernds, director
- **CHARLES LANG, "The Way We Are,"** (Wm. Cotte Print) with Jean Crawford, Cliff Robertson, Vera Miles, Laraine Day, and Ruth Duggally, Robert Alton, director
- **ROBERT COFFEE, "The Broken Toy Train,"** with Humphrey Bogart, Red Skelton, Mike

Lane, Joe Walcott, Cedric Belfrage, Harold Stone, Max Baer, Nathan Fayo, Edward An Grou, Vinney DeCarlo, Mark Robson, director

• **CHARLES LINTON, "A Hanged Man's Night,"** with Jane Alfred, Jack Lemmon, Charles Backlund, Jan Rieker, Dick Powell, director

METRO-GOLDWYN-MAYER

- **JOSEPH RUTENFRANZ, "The Swan,"** (Eastman Color, CinemaScope) with Gene Kelly, Alec Guinness, Louis Jourdan, Brian Aherne, Agnes Moorhead, Charles Vidor, director
- **RUSSELL HARRIS, "Lost For Love,"** (Eastman Color, CinemaScope) with Kirk Douglas, Anthony Quinn, Niall McGuinness, Pamela Brown, Virginia Madsen, director
- **ARTHUR ARLEN, "Foul Play,"** (Wide Screen) with Glenn Ford, Diana Ross, Leslie Nielsen, Juanita Fernandez, Alex Segal, director
- **ROBERT SUTHER, "The Swan,"** (Eastman Color, CinemaScope) with Gene Kelly, Alec Guinness, Louis Jourdan, Brian Aherne, Agnes Moorhead, Charles Vidor, director
- **PAUL VOGEL, "The Rock,"** with Paul Newman, Walter Pidgeon, Wendell Corey, Edmund Bruns, Arnold Laven, director

PARAMOUNT

- **LORENZ GORDON, "WALLACE KILLER,"** (Technicolor, VistaVision) with Charlton Heston, Anne Baxter, Yul Brynner, et al. Correll B. De Mille, director
- **FRANK PLYNN, "The Mounties,"** (Technicolor, VistaVision) with Spencer Tracy, Robert Wagner, Claire Trevor, Richard Arlen, William Desmond, Producer-director, Edward Dmytryk
- **LORENZ GORDON, "That Certain Feeling,"** (Technicolor, VistaVision) with Bob Hope, George Sanders, Errol Morris, Pearl Bailey, David Lewis and Al Capp, Producers-directors, Norman Panama and Melvin Frank
- **DANIEL LEVY, "Farewell,"** (Technicolor, VistaVision) with Debra Loring, Jerry Lewis, and Lari Nelson, Producer-director

Twentieth Century-Fox

- **CHARLES CLARKE, "Carnegie,"** (Color; CinemaScope) with Frank Sinatra, Shirley Jones, Barbara Rush, Corinne Mitchell, Clarence Turner, Audie Charles, Robert Kannevitz, Harry King, director
- **LEON SHARKEY, "The King and I,"** (Color, CinemaScope) with Deborah Kerr, Yul Brynner, Rex Meyers, Yvonne, Martin Benson, Walter Lang, director
- **LEO TOLSTOY, "The Revolt of Manar Sert,"** (Color, CinemaScope) with Jane Russell, Richard Egan, Agnes Moorhead, Ronald Walsh, director

UNIVERSAL INTERNATIONAL

- **MILTON GROSSMAN, "Raw Edge,"** (Technicolor) with Ray Collins, Frances De Coter, Rex Brown, Mary Carter, Neville Brand, Robert Adler, Robert Walker, John Sheppard, director
- **IRVING CLARKSON, "Cry Innocent,"** with Merle Oberon, Lex Barker, Albert Seltzer, director
- **GEORGE FORDIMAN, "Too Tight,"** (Technicolor) with Jeff Chandler, Lizabeth Day, Tim Hovey, Joey DeSanto, director
- **HAROLD LINTON, "Apache Agent,"** (Technicolor) with Rock Hudson, Lauren Murphy, Pat Crowley, Jean Hilde, director
- **RUSSELL METTY, "Whereas the Wind,"** (Technicolor) with Rock Hudson, Lauren Murphy, Robert Stack, Douglas Dick, director

WABVE BROTHES

- **J. PETERLY MARLEY, "Seawards,"** (Western Color) with Mario Lanza, Jean Van Ameringen, Sandra Marshall, and Vincent Price, Anthony Mann, director
- **HAL ROSSON, "The Bad Seed,"** with Nancy Kelly, Fatty McCormack, William Hopper, Debra VanDer, Mayra LaRoe, producer-director
- **TIM MCCORMACK, "The Spirit of St. Louis,"** starring Jimmy Stewart, Kelly Walker, director
- **JOHN SMIT, "Cry In The Night,"** (Japan Print) with Edward G. Robinson, Natalie Wood, Brian Donlevy, Richard Anderson, and Raymond Burr, Frank Yards, director

INDEPENDENT

- **LIONEL LINTON, "Around The World In 80 Days,"** (Michael Todd Print, Todd AP) with David Niven, Cantarina, Shirley MacLaine, Robert Newton, Maurice Chevalier, Noel Coward, Fanny Currier, Fernand, Sir John Gielgud, Hermione Gifford, Cedric Belfrage, Glynn Jones, Spencer Lytle, A. E. Matthews, John Mills, Robert Morley, Ronald Sneyd, Basil Sinden, Laurence Williams, Len Dorey, Producer-director, Michael Anderson, director
- **CHARLES BRILL, "The Great Locomotive Chase,"** (Technicolor, CinemaScope, Stereo Vista Productions) with Gene Parker, Jeff Hunter, Jeff York, John Lupton, Sam Jones, and Claude Jarman, Francis D. Lyon, director
- **JOSEPH BRON, "Nightmare,"** (Fino-Thames-Sound Print) with Edward G. Robinson, Keane McCarthy, George Russell, Maxwell Shane, director
- **LUCY BALLARD, "Bird of Fire,"** (Harris-Kubacki Print) with Sterling Hayden, Cedric Belfrage, Marc Winkler, Stanley Kunitz, director
- **WALTER STUBBS, "Cry of Warning,"** (Leisure Print, Eastman Color, Wide Screen) with Robert Hays, Guy Haines, Alan Palmer, Boris Petroff, producer-director
- **JOSEPH LASHLEY, "Run For the Sun,"** (Ran Field Corp. Color, SuperScope) with Richard Widmark, Jane Greer, Harry Tatham, director
- **ERNEST LAZLO, "Bandits,"** (Bandito Print, Color, CinemaScope) with Robert Montgomery, Ursula Thoms, Gilbert Roland, Richard Koster, director
- **WILLIAM MILLER, "Johnny Cash,"** (Kost Print) with Frank Sinatra, Phyllis Kirk, Kenneth Wynn, Don McGuire, director

A DAY WITH A CAMERA

(Continued from Page 731)

ner and director Negulesco could make the final lineup with the camera itself. This done, the stand-ins were called to take their places and the lighting was given a final check. Once the set light lag is completed, the head puller takes a light reading which determines the lens opening to be used. Sometimes this light reading serves only as a starting point. The cameramen may strive to impart a particular mood to the scene, and may accomplish this by setting his exposure above or below the established light reading mark for the particular film being used. In this case, however, the exposure was to be as read on the meter.

At this point, the camera crew ran a test—that is, they exposed a short length of film on the scene for the purpose of checking condition of the film gate and aperture plate. The aperture plate was again examined and the camera pronounced ready.

Director Negulesco proceeded to make a few last minute changes in the set and Kramer made comparable changes in his lighting to compensate for them. The company was now ready for a practice run over the whole shot. The assistant measured the distance, or "run a tape" as they say, from the camera to the most important player on the set, which enabled him to set focus of the lens to achieve the desirable sharpness and depth of field. Further check of the camera's readiness resulted in the crew making a dry run, moving the dolly-mounted camera as prescribed.

Dolly and crane operators are important members of the team that makes up the camera crew for shooting scenes such as we were about to see photographed. Rex Turrense and Jack Richter, who handled the boom, are considered among the best in the business.

On dolly or crane shots, the camera must never move before the action, nor may it lag behind. Split-second timing is necessary in making these moves accurately and completely unobtrusive when they appear on the screen. To achieve this, Turrense and Richter worked in close cooperation with operator Paul Lockwood, rehearsing the movement until they had the pattern down perfectly.

Working the scene through the viewfinder, Lockwood offered several suggestions about placement of extras in the scene. Action is ready to begin. Offstage a sound crew starts playing a receding of cries and moans of injured and dying people to set the mood for the players. The scene about to be filmed is one that follows a flood and an earthquake for "Rains of Ranchipur."

An assistant holds a slate in front of the camera as it is started, and this

puts the identifying data on the film that indicates to the film editor what scene and take it represents.

The director calls "Roll 'em," and photography begins. Lockwood is in the operator's chair on the crane. Labovitz moves along side the camera, changing focus as it moves in and out according to pre-determined plan. The shot is completed and Labovitz makes an immediate check of the camera's aperture plate. It's clean, and this means the shot is okay "for camera."

The director decides to make a second take of the scene. After it is completed, there is a discussion between Milton Kramer, his operator, and director Negulesco. It is suggested that if the camera is in boom action, ended up a little higher it would be a more effective shot of the people in the background. The director agrees and a third take is made that way. But before the camera rolls, the assistant cameraman has to reload the camera with film. Almost 400 feet was used on the first two takes.

Take three was made, but the operator observed that the higher position of the camera cast a shadow. So director of photography Kramer ordered some changes made in the light positions and the scene was shot again—this time for an acceptable take.

With the first scene "in the can," the company went right on to the next set-up. Kramer and director Negulesco laid up the next shot, scheduled to be made right after lunch, and the electricians set to work with their lighting. The exposed magazine of film, meantime, was sent out to the loading room. The camera crew walked through the next shot with the director, and the floor positions were marked for the action. This done, the company went to the commissary for lunch.

When they returned to the set 45 minutes later, they found operator Paul Lockwood on the camera crane fishing for the right focus and lineup on what was going to be a difficult shot. The camera crew had to move from a medium close shot in the first position to a low two shot, up to an eye-level two shot, in for a close shot, and then pan with the principals exiting from the scene. This would involve no fewer than five focus changes and five different stops for the boom and crane operators. Here is where the skill of the assistant and the operator counts the most. The focus changes are the assistant's responsibility; the operator must keep the action always nicely framed; and the two guys who operate the camera cannot make the moves precisely and perfectly coordinated with the movements of the actors.

Director of photography Kramer, of course, oversees the entire operation.

NEW LOW PRICES—

Convert Your Auricon
Pro or Cine-Voice to
Accept 400-ft Magazines

✓ Pro or Cine-Voice
✓ Complete 400' Magazine
✓ Professional
✓ Professional



- The most reliable, low cost magazine to use on all film reels from 300' through 400' with magazines of various film & chemical types for direct sound recording on three film cameras in portable, professional, industrial and commercial use. We can supply complete new units on order.
- Thoroughly tested, approved and in use by major TV stations.
- Magazine will accept up to 500' bulk loaded film.
- Special light seals when camera is running.
- Super distance lag or speed up of the load.
- Vastly more type frames indicator built in.
- Built-in film gate with 2 film holders.
- We are an extended service agent.
- Built-in camera photo jack for monitoring sound.
- Exclusive ball bearing shaft magazine.
- Contact look on plugs for all sound tracks.

Current Camera-Loaded Camera

Low Magazine

\$345.00

WRITE FOR LITERATURE

HAROLD'S Photography & TV

208 South Phillips, Union Park, N. J.

RUBY CAMERA EXCHANGE

Rents ... Sells ... Exchanges

Everything You Need for the

Production & Projection

of Motion Pictures Provided
by a Veteran Organization
of Specialists

35 mm. . . . 16 mm.
Television

IN BUSINESS SINCE 1919

727 Seventh Ave., New York 19, N. Y.

Tel.: Circle 5-5440

Cable address: RUBYCAM

FILTERS
In World-Wide Use

Prevents moonlight and night effects
on daylight-lag camera-diffused lenses
and many other effects.
Inexpensive, built-in camera

SCHMIDT RABBIT COMPANY
Manufactured by SCHMIDT RABBIT
P.O. Box 6232, Hollywood 46, Calif.



Synchronous Motor Drive for 16mm Projectors

Especially designed to drive all Bell & Howell Ansco and Victor 16mm projectors at Synchronous speed and for TV studios.

The synchronous motor drive can be instantly attached to projector and taken off at any time. No special technical knowledge required for installation and mounting.

The synchronous motor drive is complete with base plate, Cannon plug for cable and power switch, and a set of instruction gears.

Write for more details and prices.

Also available in special water lock Motor Drive for all 16mm 16mm portable projectors.

ONE YEAR WARRANTY

Immediate Delivery

Available at leading dealers, or direct.

CINEKAD

ENGINEERING COMPANY

330 West 22nd St., New York 11, N.Y.

Phone 7-2311

DEALERS AND INSTALLERS OF

MOORE PICTURE-IT EQUIPMENT

**RENT • SELL
TRADE • BUY**

CAMERA CRAFT
4766 133rd AVENUE • HOLLYWOOD
Phone HO 8296

ALSO VISUAL
AIDS & SPECIALS

**JOSEPH YOLO, 1037 N. La Brea
Phone GL 7153 Hollywood, California**

Automatic slanting mechanisms for use
special size Bolex 8-16 & 16 (Equipped
with Patented Slanted)

Now he is checking the lights. On this shot he is doing the final lighting on the principals themselves, rather than the stands. Then he climbs on the boom and runs through the shot from start to finish, observing the scene all the while through the camera finder.

The past fifty minutes has been a period of intense work for every man connected with the camera. Each man appears relaxed and working in a casual manner most of the time. But they are fooling no one. They are faced here with a complex and extremely difficult shot and they are concentrating on accomplishing it with perfection. Each is an experienced craftsman, proud of his work, and measures his accomplishments by a standard that only recognizes the best.

The camera crew has everything in readiness, and is ready to run through the action with the actors in a rehearsal. Here again I observed the fine precision and coordination that marks the work of every man on the crew. At exactly 2:12 p.m., they rolled a slate and shot the scene for the first time. Five additional takes and the director was satisfied to move on to the next setup.

The camera is moved now for a side angle of the shot just finished. The camera is moved outside the building and will be shooting toward the inside, through the rain. The grips remove the crane and the tracks. The camera is dismounted from the crane and re-mounted on a tripod, which is then placed on a parallel—a sort of giant Tinker-toy platform that can be readily assembled and built to various heights, as required.

Shooting a rain sequence calls for certain precautions to protect the camera and lens, so a plastic cover is placed over the camera temporarily until the company is ready to shoot. In the meantime, grips appear and proceed to erect a most durable protective cover called a "greenhouse." This is a three-sided canvas enclosure with a roof and is placed over the camera and crew.

The artificial rain-making equipment is tested, and what appears as a heavy, normal rain falls the set. The special effects men, in whose department this activity falls, are all over the set, adjusting the nozzles on the water hoses to get the best possible "rain" effect.

In front of the "greenhouse," Milton Kraemer is directing the lighting of the set. Rain shots pose some unique problems in lighting, he told me. The set has to be lit mostly from the back or the rain will fall to register clearly as such on the screen. Also, rain shots call for stepping down the lens because the rain droplets reflect a great deal of light.

When Kraemer had the set lighted to his satisfaction, I looked at the scene

through the finder. The whole effect is highly realistic. Now the rain volume is adjusted to a heavy downpour. It not only looks real, but it sounds real.

The special effects men turn off the rain temporarily and the principals take their positions on the set. The slate is shot as the camera starts to roll and the action photographed. One take does it. The rain is stopped and Kraemer begins to set up for his next shot. It will be virtually the same, except as closer.

Meantime, the camera is covered with the plastic sheet and removed from the parallel. The parallel is moved in closer and the camera re-mounted on it. The "greenhouse" is set in the new position; Kraemer starts lighting for the closer shot; and the camera crew is very careful now to keep the camera fully protected against the rain, as they are now working right up close to it. Rather quickly, everything is set for the take, and the scene is photographed. Director Nagelstein said "print it," looked at his watch, and decided to call it a day.

The camera is dismounted from the tripod, the magazine removed, and everything is put in its allotted place on the camera cart; the lens is put back in its special case; the finder, the magazine, all are removed completely from the camera. Only the hydraulic head the camera rests upon, when mounted on the crane, is left on the crane, since the company will be using it again the next day.

While the camera crew is taking care of all this, Kraemer is busy lining up the first shot scheduled for the following morning, so that the crew and the electricians will be able to go right to work on it when they come in.

The camera and equipment is now on the way back to the camera department. Kraemer, his operator and assistant, the director, and others proceed to the projection room to see the rushes of the previous day's work. In this way they check their progress, keep tabs on focus, exposure and camera movement, as well as the general composition and specific detail of the story.

Meantime, camera No. 15 is undergoing its regular nightly inspection and conditioning. It will be completely inspected, cleaned and lubricated by a competent mechanic of the studio's camera department, ready to take up its duties again the next day on the sound stage.

Thus did one day pass in the life of Twentieth Century-Fox camera No. 15. One day of a long and colorful life; a life that has found this and other cameras like it shooting from helicopters, over cranes, underwater, aboard ship, or in fast moving planes. No job has yet been devised that a Hollywood camera and crew couldn't handle.

Foster, Frederick... The Big Switch Is In TV: 26
 In A Budgets in Color—Impression in Black-and-white: 78
 —CinemaScope—New Video-Film System for Feature Production: 340
 —Article Reprinted from *Photography*: 403
 —Interviews: 404
 —Soren Berg... On TV: 405
 Fols, Fred... Electronic Demonstration for Wide-View Stereo: 304

G

Gard, Arthur... Technical Progress in 1954: 54
 —The Photography of "Red of Star": 144
 —CinemaScope: 340

Gray, Bob... The Use of Entering Light in News-see Photography: 144

H

Hendrix, Clifford... The New Television Film Camera: 444

Hendrix, Clifford... Hitting A Pin—winner: 332

—On Movie On TV: 229

—On News Coverage: 718

Hester... On TV: 229

Henderson, James... Motion Picture Production at the University of California: 54

Helen, John... Adapting Feature Film to Television: 340

Helen, John... Splitting Motion Picture Film with TV: 131

Hewitt, C. R... On Film to Congress via Film: 238

J

Jewell, Roy... "Pacing a Sound-on-Sound Color": 274

K

Knight, Bob A... Shooting "Oldsmobile" in Tels: 400

—The Photography of "Red of Star": 144

—On TV: 229

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Knight, William B... Color Television Film Shooting: 144

Page

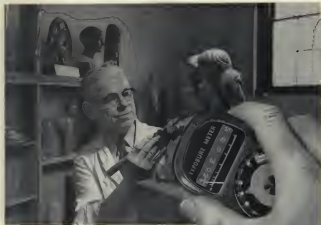
100-Hollywood Bulletin Board
 101-What's New in Equipment, Accessories, Services
 102-Books, Catalogs, Brochures
 103-Technical Progress in 1954: 54
 104-The Big Switch Is In TV: 26
 105-Advertising the 20th Century Film Production
 106-Advertising the 20th Century Film Production
 107-Advertising the 20th Century Film Production
 108-Advertising the 20th Century Film Production
 109-Advertising the 20th Century Film Production
 110-Advertising the 20th Century Film Production
 111-Advertising the 20th Century Film Production
 112-Advertising the 20th Century Film Production
 113-Advertising the 20th Century Film Production
 114-Advertising the 20th Century Film Production
 115-Advertising the 20th Century Film Production
 116-Advertising the 20th Century Film Production
 117-Advertising the 20th Century Film Production
 118-Advertising the 20th Century Film Production
 119-Advertising the 20th Century Film Production
 120-Advertising the 20th Century Film Production
 121-Advertising the 20th Century Film Production
 122-Advertising the 20th Century Film Production
 123-Advertising the 20th Century Film Production
 124-Advertising the 20th Century Film Production
 125-Advertising the 20th Century Film Production
 126-Advertising the 20th Century Film Production
 127-Advertising the 20th Century Film Production
 128-Advertising the 20th Century Film Production
 129-Advertising the 20th Century Film Production
 130-Advertising the 20th Century Film Production
 131-Advertising the 20th Century Film Production
 132-Advertising the 20th Century Film Production
 133-Advertising the 20th Century Film Production
 134-Advertising the 20th Century Film Production
 135-Advertising the 20th Century Film Production
 136-Advertising the 20th Century Film Production
 137-Advertising the 20th Century Film Production
 138-Advertising the 20th Century Film Production
 139-Advertising the 20th Century Film Production
 140-Advertising the 20th Century Film Production
 141-Advertising the 20th Century Film Production
 142-Advertising the 20th Century Film Production
 143-Advertising the 20th Century Film Production
 144-Advertising the 20th Century Film Production
 145-Advertising the 20th Century Film Production
 146-Advertising the 20th Century Film Production
 147-Advertising the 20th Century Film Production
 148-Advertising the 20th Century Film Production
 149-Advertising the 20th Century Film Production
 150-Advertising the 20th Century Film Production
 151-Advertising the 20th Century Film Production
 152-Advertising the 20th Century Film Production
 153-Advertising the 20th Century Film Production
 154-Advertising the 20th Century Film Production
 155-Advertising the 20th Century Film Production
 156-Advertising the 20th Century Film Production
 157-Advertising the 20th Century Film Production
 158-Advertising the 20th Century Film Production
 159-Advertising the 20th Century Film Production
 160-Advertising the 20th Century Film Production
 161-Advertising the 20th Century Film Production
 162-Advertising the 20th Century Film Production
 163-Advertising the 20th Century Film Production
 164-Advertising the 20th Century Film Production
 165-Advertising the 20th Century Film Production
 166-Advertising the 20th Century Film Production
 167-Advertising the 20th Century Film Production
 168-Advertising the 20th Century Film Production
 169-Advertising the 20th Century Film Production
 170-Advertising the 20th Century Film Production
 171-Advertising the 20th Century Film Production
 172-Advertising the 20th Century Film Production
 173-Advertising the 20th Century Film Production
 174-Advertising the 20th Century Film Production
 175-Advertising the 20th Century Film Production
 176-Advertising the 20th Century Film Production
 177-Advertising the 20th Century Film Production
 178-Advertising the 20th Century Film Production
 179-Advertising the 20th Century Film Production
 180-Advertising the 20th Century Film Production
 181-Advertising the 20th Century Film Production
 182-Advertising the 20th Century Film Production
 183-Advertising the 20th Century Film Production
 184-Advertising the 20th Century Film Production
 185-Advertising the 20th Century Film Production
 186-Advertising the 20th Century Film Production
 187-Advertising the 20th Century Film Production
 188-Advertising the 20th Century Film Production
 189-Advertising the 20th Century Film Production
 190-Advertising the 20th Century Film Production
 191-Advertising the 20th Century Film Production
 192-Advertising the 20th Century Film Production
 193-Advertising the 20th Century Film Production
 194-Advertising the 20th Century Film Production
 195-Advertising the 20th Century Film Production
 196-Advertising the 20th Century Film Production
 197-Advertising the 20th Century Film Production
 198-Advertising the 20th Century Film Production
 199-Advertising the 20th Century Film Production
 200-Advertising the 20th Century Film Production

201-Peter Dyer Station Editing Table
 202-Advertising the 20th Century Film Production
 203-Advertising the 20th Century Film Production
 204-Advertising the 20th Century Film Production
 205-Advertising the 20th Century Film Production
 206-Advertising the 20th Century Film Production
 207-Advertising the 20th Century Film Production
 208-Advertising the 20th Century Film Production
 209-Advertising the 20th Century Film Production
 210-Advertising the 20th Century Film Production
 211-Advertising the 20th Century Film Production
 212-Advertising the 20th Century Film Production
 213-Advertising the 20th Century Film Production
 214-Advertising the 20th Century Film Production
 215-Advertising the 20th Century Film Production
 216-Advertising the 20th Century Film Production
 217-Advertising the 20th Century Film Production
 218-Advertising the 20th Century Film Production
 219-Advertising the 20th Century Film Production
 220-Advertising the 20th Century Film Production
 221-Advertising the 20th Century Film Production
 222-Advertising the 20th Century Film Production
 223-Advertising the 20th Century Film Production
 224-Advertising the 20th Century Film Production
 225-Advertising the 20th Century Film Production
 226-Advertising the 20th Century Film Production
 227-Advertising the 20th Century Film Production
 228-Advertising the 20th Century Film Production
 229-Advertising the 20th Century Film Production
 230-Advertising the 20th Century Film Production
 231-Advertising the 20th Century Film Production
 232-Advertising the 20th Century Film Production
 233-Advertising the 20th Century Film Production
 234-Advertising the 20th Century Film Production
 235-Advertising the 20th Century Film Production
 236-Advertising the 20th Century Film Production
 237-Advertising the 20th Century Film Production
 238-Advertising the 20th Century Film Production
 239-Advertising the 20th Century Film Production
 240-Advertising the 20th Century Film Production
 241-Advertising the 20th Century Film Production
 242-Advertising the 20th Century Film Production
 243-Advertising the 20th Century Film Production
 244-Advertising the 20th Century Film Production
 245-Advertising the 20th Century Film Production
 246-Advertising the 20th Century Film Production
 247-Advertising the 20th Century Film Production
 248-Advertising the 20th Century Film Production
 249-Advertising the 20th Century Film Production
 250-Advertising the 20th Century Film Production
 251-Advertising the 20th Century Film Production
 252-Advertising the 20th Century Film Production
 253-Advertising the 20th Century Film Production
 254-Advertising the 20th Century Film Production
 255-Advertising the 20th Century Film Production
 256-Advertising the 20th Century Film Production
 257-Advertising the 20th Century Film Production
 258-Advertising the 20th Century Film Production
 259-Advertising the 20th Century Film Production
 260-Advertising the 20th Century Film Production
 261-Advertising the 20th Century Film Production
 262-Advertising the 20th Century Film Production
 263-Advertising the 20th Century Film Production
 264-Advertising the 20th Century Film Production
 265-Advertising the 20th Century Film Production
 266-Advertising the 20th Century Film Production
 267-Advertising the 20th Century Film Production
 268-Advertising the 20th Century Film Production
 269-Advertising the 20th Century Film Production
 270-Advertising the 20th Century Film Production
 271-Advertising the 20th Century Film Production
 272-Advertising the 20th Century Film Production
 273-Advertising the 20th Century Film Production
 274-Advertising the 20th Century Film Production
 275-Advertising the 20th Century Film Production
 276-Advertising the 20th Century Film Production
 277-Advertising the 20th Century Film Production
 278-Advertising the 20th Century Film Production
 279-Advertising the 20th Century Film Production
 280-Advertising the 20th Century Film Production
 281-Advertising the 20th Century Film Production
 282-Advertising the 20th Century Film Production
 283-Advertising the 20th Century Film Production
 284-Advertising the 20th Century Film Production
 285-Advertising the 20th Century Film Production
 286-Advertising the 20th Century Film Production
 287-Advertising the 20th Century Film Production
 288-Advertising the 20th Century Film Production
 289-Advertising the 20th Century Film Production
 290-Advertising the 20th Century Film Production
 291-Advertising the 20th Century Film Production
 292-Advertising the 20th Century Film Production
 293-Advertising the 20th Century Film Production
 294-Advertising the 20th Century Film Production
 295-Advertising the 20th Century Film Production
 296-Advertising the 20th Century Film Production
 297-Advertising the 20th Century Film Production
 298-Advertising the 20th Century Film Production
 299-Advertising the 20th Century Film Production
 300-Advertising the 20th Century Film Production

INDEX GUIDE

To locate the item in which an article appears, consult the page number given in the index with the page number below:

Month	Page Number
January	112 to 113
February	113 to 114
March	114 to 115
April	115 to 116
May	116 to 117
June	117 to 118
July	118 to 119
August	119 to 120
September	120 to 121
October	121 to 122
November	122 to 123
December	123 to 124



*When your meter reads like this...
you'll get the scene with new*

Cine-Kodak Tri-X C-P Reversal Film

Even when your light meter seems to have to strain to measure the available light from the scene you want, you can count on new Cine-Kodak Tri-X Film to see all, get all—without the delay, without the bother, of setting up extra lighting.

That means movies as they happen—with unposed, unquoting naturalness—not a gesture or a moment lost. Tri-X speed is plain phenomenal: 300 Daylight gives you those after-sundown scenes; 160 Tungsten (less than the lamp beside your reading chair) lets you get indoor shots otherwise requiring considerable lighting equipment!

Tri-X gives good movie quality, too. Its speed lets you stop down for real depth of field. There's less graininess than with your present Super-XX

Film. Scenes are sharp and clear. Highlights are brilliant. Blacks are dense, rich black. The important middle tones are all there.

This is reversal film which, after processing, gives a positive image for projection. If you need duplicates, you can have them with little sacrifice of sharpness. Reversal processing of the film is quite simple and is readily available from independent processing laboratories. No Kodak processing service is therefore provided. (It's also available in negative film, if you plan to make several prints.)

Try it—and you'll find yourself capturing scenes for your movies that you didn't know were there!

New Cine-Kodak Tri-X C-P Reversal Film is now available at or through most Kodak dealers.



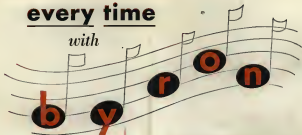
Cine-Kodak Tri-X C-P Reversal Film available: 35mm., with single or double perforations—100-ft. roll on camera spool, \$4.00; 200-ft. roll, \$8.25, 400-ft. roll, for darkroom loading, \$15.45. Prices do not include processing.

Prices include Federal Tax where applicable and are subject to change without notice.

Kodak
KODAK SAFETY FILM

EASTMAN KODAK COMPANY, Rochester 4, N. Y.

color harmony every time



color-correct* prints

You'll also
have **production harmony**
every time you schedule
these Byron 16mm facilities:
script
art
titling
animation
editing
sound effects
recording
location photography
music library
sound stage
complete black-and-white
laboratory facilities
precision magnetic stripping

Quality conscious? Byron color-correct* prints are
what you want. Get duplicate prints processed
with exacting fidelity — color prints in balance that
retain all their natural beauty with full depth and
clarity. Color-correct* is a Byron exclusive, the result
of many years of engineering research and development
by a pioneer laboratory — staffed by master craftsmen
— working with the finest equipment at top level
efficiency. Choose the leader in the 16mm color field.
Time important? Try our 8-hour service.

byron Studios and Laboratory

1226 Wisconsin Avenue, N.W., Washington 7, D.C. DU Pont 7-1890

*Reg. U. S. Patent Office

SEND FOR YOUR COMPLIMENTARY COPY OF THE 3 ILLUSTRATED BULLETINS ON "PRE-PRINT PREPARATION" AS DEVELOPED AND RECOMMENDED BY THE ASSOCIATION OF CINEMA LABORATORIES

J. 4140 e